

SX3000/5000/7000

Body Ported Valve

How to Order

SX **5** **1** 20 — **5** **N** **L** — — — **01** — —

Series

3	SX3000
5	SX5000
7	SX7000

Configuration

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Rated voltage

5	24V DC
6	12V DC
V	6V DC
S	5V DC
R	3V DC

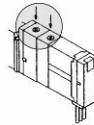
Common

—	Positive common
N	Negative common

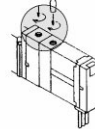
Note) Put nothing for single grommet and single without indicator light and surge voltage suppresser.

Manual override

—: Non-locking push style



D: Push-turn-locking slotted style

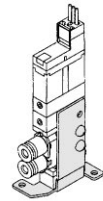


Indicator light and surge voltage suppressor

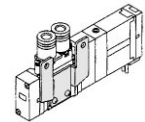
—	Without indicator light and surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light and surge voltage suppressor

Bracket

—: Without bracket
F1: With foot bracket



F2: With side bracket



A/B port size

	Port size	Series
M5	M5 X 0.8	SX3000
C4	One-touch fittings for ø4	
C6	One-touch fittings for ø6	
C4	One-touch fittings for ø4	SX5000
C6	One-touch fittings for ø6	
C8	One-touch fittings for ø8	
O1	Rc(PT) 1/8	SX7000
O2	Rc(PT) 1/4	
C8	One-touch fittings for ø8	
C10	One-touch fittings for ø10	

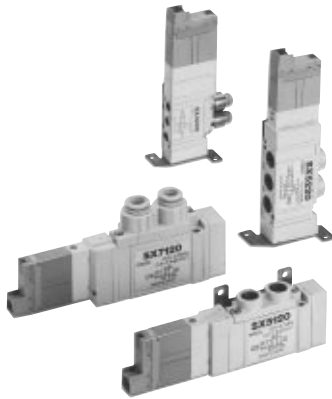
Electrical entry

Grommet	L plug connector	M plug connector	
G: 300mm lead wire 	L: 300mm lead wire 	M: 300mm lead wire 	MN: Without lead wire
H: 600mm lead wire 	LN: Without lead wire 	LO: Without connector 	MO: Without connector


* The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.

SX3000/5000/7000 Body Ported Valve

Specifications



Series		SX3000	SX5000	SX7000
Fluid		Air		
Internal pilot	2 position single	0.15 to 0.7		
operating pressure range (MPa)	2 position double	0.1 to 0.7		
	3 position	0.2 to 0.7		
Ambient and fluid temperature °C		Max. 50		
Max. operating frequency (Hz)	2 position single, double	10	5	5
	3 position	3	3	3
Manual override		Non-locking push style, Push-turn-locking slotted style		
Pilot exhaust		Common exhaust for main and pilot valve		
Lubrication		Not required		
Mounting position		Free		
Impact/Vibration resistance (m/s ²)		150/30		
Protection structure		Dust proof		

 Note) Shock resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states.

Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Tests were performed at both energized and de-energized states to the axis and right angle direction of the main valve and armature. (Value in the initial stage.)




P.1.3-112 to 1.3-126

Solenoid Specifications

Electrical entry		Grommet (G)/(H), L plug connector (L), M plug connector (M)
Coil rated voltage (V)	DC	24, 12, 6, 5, 3
Allowable voltage		±10% rated voltage
Power consumption (W)	DC	0.6 (With light: 0.65)
Surge voltage suppressor		Diode
Indicator light		LED

Response Time

 Note) According to JISB8375-1981 kinetic ability test (Coil temperature: 20°C, at rated voltage).

SX3000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	12 or less	15 or less
2 position double	10 or less	13 or less
3 position	15 or less	20 or less

SX5000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	19 or less	26 or less
2 position double	18 or less	22 or less
3 position	32 or less	38 or less

SX7000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	31 or less	38 or less
2 position double	27 or less	30 or less
3 position	50 or less	56 or less

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

SX3000/5000/7000

Series SX3000

Valve	Configuration	Port size		Effective area (mm ²) (Cv)		Weight (g)				
		P, EA, EB	A, B	P→A/B	A/B→EA/EB	Grommet	L, M plug connector			
SX3□20-□-M5	2 position	Single	M5 X 0.8	C4 (One-touch fitting for ø4)	3.6 (0.2)	3.78 (0.21)	62	63		
		Double					70	72		
	3 position	Closed center					3.6 (0.2)	3.42 (0.19)	73	74
		Exhaust center					3.6 (0.2)	3.78 (0.21) [2.7 (0.15)]		
		Pressure center					3.96 (0.22) [2.88 (0.16)]	3.6 (0.2)		
		Closed center					3.42 (0.19)	3.6 (0.2)		
SX3□20-□-C4	2 position	Single	M5 X 0.8	C4 (One-touch fitting for ø4)	3.42 (0.19)	3.6 (0.2)	72	73		
		Double					80	81		
	3 position	Closed center					3.42 (0.19)	3.42 (0.19)	82	84
		Exhaust center					3.42 (0.19)	3.78 (0.21) [2.7 (0.15)]		
		Pressure center					3.6 (0.2) [2.16 (0.12)]	3.6 (0.2)		
		Closed center					3.6 (0.2)	3.6 (0.2)		
SX3□20-□-C6	2 position	Single	M5 X 0.8	C6 (One-touch fitting for ø6)	3.6 (0.2)	4.14 (0.23)	68	69		
		Double					76	77		
	3 position	Closed center					3.6 (0.2)	3.96 (0.22)	78	80
		Exhaust center					3.78 (0.21)	4.5 (0.25) [3.06 (0.17)]		
		Pressure center					3.96 (0.22) [2.88 (0.16)]	3.96 (0.22)		
		Closed center					3.6 (0.2)	3.96 (0.22)		



Note) []: Normal position

Series SX5000

Valve	Configuration	Port size		Effective area (mm ²) (Cv)		Weight (g)				
		P, EA, EB	A, B	P→A/B	A/B→EA/EB	Grommet	L, M plug connector			
SX5□20-□-01	2 position	Single	Rc (PT) 1/8	C4 (One-touch fitting for ø4)	9.18 (0.51)	10.6 (0.59)	75	76		
		Double					83	84		
	3 position	Closed center					7.38 (0.41)	7.92 (0.44)	88	90
		Exhaust center					7.56 (0.42)	12.06 (0.67) [8.28 (0.46)]		
		Pressure center					10.62 (0.59) [4.32 (0.24)]	8.46 (0.47)		
		Closed center					5.5 (0.31)	3.9 (0.22)		
SX5□20-□-C4	2 position	Single	Rc (PT) 1/8	C4 (One-touch fitting for ø4)	5.5 (0.31)	3.9 (0.22)	83	84		
		Double					91	92		
	3 position	Closed center					5.3 (0.29)	3.9 (0.22)	96	97
		Exhaust center					5.3 (0.29)	3.9 (0.22)		
		Pressure center					5.7 (0.32)	3.9 (0.22)		
		Closed center					9 (0.5)	9 (0.5)		
SX5□20-□-C6	2 position	Single	Rc (PT) 1/8	C6 (One-touch fitting for ø6)	9 (0.5)	9 (0.5)	78	79		
		Double					86	87		
	3 position	Closed center					7.2 (0.4)	7.38 (0.41)	91	92
		Exhaust center					7.38 (0.41)	9.72 (0.54) [7.2 (0.4)]		
		Pressure center					10.62 (0.59) [4.32 (0.24)]	7.2 (0.4)		
		Closed center					9.18 (0.51)	9.9 (0.55)		
SX5□20-□-C8	2 position	Single	Rc (PT) 1/8	C8 (One-touch fitting for ø8)	9.18 (0.51)	9.9 (0.55)	79	80		
		Double					87	88		
	3 position	Closed center					7.38 (0.41)	7.92 (0.44)	92	93
		Exhaust center					7.38 (0.41)	11.88 (0.66) [7.74 (0.43)]		
		Pressure center					10.62 (0.59) [4.32 (0.24)]	7.92 (0.44)		
		Closed center					9.18 (0.51)	9.9 (0.55)		



Note) []: Normal position

Series SX7000

Valve	Configuration	Port size		Effective area (mm ²) (Cv)		Weight (g)				
		P, EA, EB	A, B	P→A/B	A/B→EA/EB	Grommet	L, M plug connector			
SX7□20-□-02	2 position	Single	Rc (PT) 1/4	C8 (One-touch fitting for ø8)	16.2 (0.9)	15.66 (0.87)	108	109		
		Double					116	117		
	3 position	Closed center					12.06 (0.67)	11.34 (0.63)	125	126
		Exhaust center					11.88 (0.66)	16.74 (0.93) [11.7 (0.65)]		
		Pressure center					17.1 (0.95) [11.16 (0.62)]	11.34 (0.63)		
		Closed center					13.86 (0.77)	13.68 (0.76)		
SX7□20-□-C8	2 position	Single	P port :Rc (PT) 1/4 EA, EB port :Rc (PT) 1/8	C8 (One-touch fitting for ø8)	13.86 (0.77)	13.68 (0.76)	114	116		
		Double					122	124		
	3 position	Closed center					11.52 (0.64)	10.44 (0.58)	131	132
		Exhaust center					11.16 (0.62)	14.4 (0.8) [10.8 (0.6)]		
		Pressure center					14.58 (0.81) [10.62 (0.59)]	10.44 (0.58)		
		Closed center					15.84 (0.88)	14.94 (0.83)		
SX7□20-□-C10	2 position	Single	Rc (PT) 1/4	C10 (One-touch fitting for ø10)	15.84 (0.88)	14.94 (0.83)	110	111		
		Double					118	119		
	3 position	Closed center					12.24 (0.68)	11.16 (0.62)	126	128
		Exhaust center					11.88 (0.66)	16.2 (0.89) [11.34 (0.63)]		
		Pressure center					16.74 (0.93) [11.16 (0.62)]	11.34 (0.63)		
		Closed center					15.84 (0.88)	14.94 (0.83)		

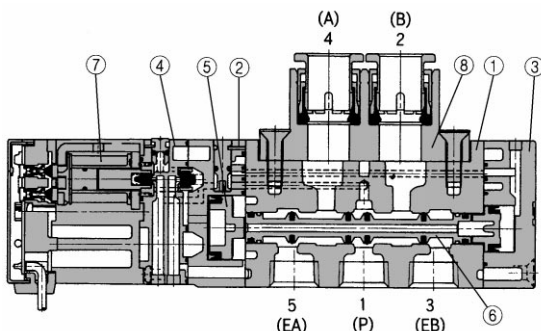
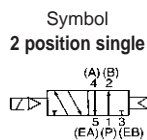


Note) []: Normal position

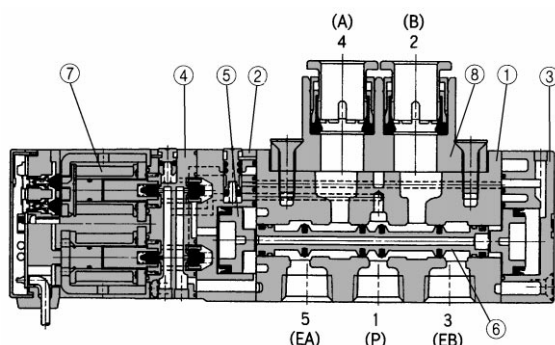
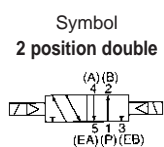
SX3000/5000/7000 Body Ported Valve

Construction

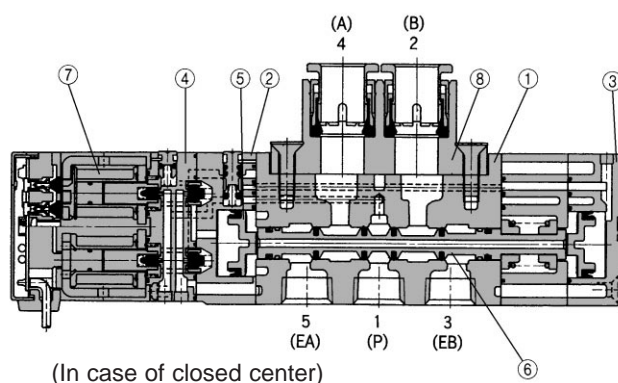
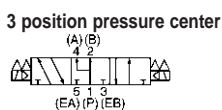
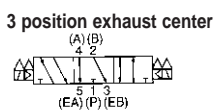
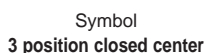
2 position single



2 position double



3 position closed center/exhaust center/pressure center



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast (SX3000: Zinc die cast)	White
②	Adaptor plate	Resin	White
③	End plate	Resin	White
④	Pilot body	Resin	White
⑤	Piston	Resin	—
⑥	Spool ass'y	Aluminum/NBR	—
⑦	Mold coil	Resin	Gray

Replacement Parts

No.	Description	Part No.
⑧	Port block ass'y	See "How to Order Port Block Ass'y" on p.1.3-14

How to Order Connector Ass'y for L and M Plug Connector

Positive common

For single solenoid : SX100 - 40-4S- []

For double solenoid, : SX100 - 40-4D- []

3 position

Negative common

For single solenoid : SX100 - 41-4S- []

For double solenoid, : SX100 - 41-4D- []

3 position

Lead wire length ●

—	300mm
6	600mm
10	1000mm
15	1500mm
20	2000mm
25	2500mm
30	3000mm
50	5000mm



Refer to p.1.3-6 for further information on connector ass'y.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

Bracket Assembly No.

Description	Part No.
Bracket (For F1)	SX ³ 000-16-2A (With mounting screw)
Bracket (For F2)	SX ³ 000-16-1A (With mounting screw)

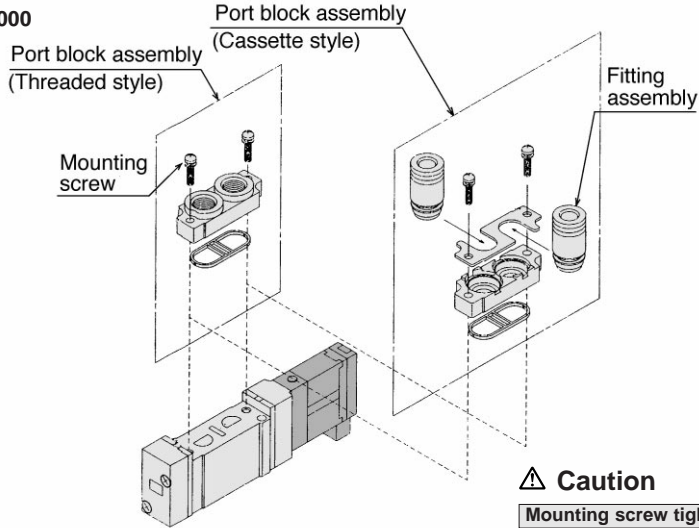
SX3000/5000/7000

How to Change Port Block Assembly

The cylinder port block assembly can easily be changed. When changing block ass'y, correct screw torque must be achieved.

Cut off the air supply to confirm that no air is left in the manifold before starting operation. Remaining air or inappropriate installation may cause an accident.

●SX5000



⚠ Caution

Mounting screw tightening torque

SX3000(M2): 0.09Nm
SX⁵000(M2): 0.6Nm



* See "How to Order Port Block Assembly below for parts no.

How to Order Cylinder Port Block Assembly

SY 000—6A—

● Series

Symbol	Series
3	SX3000
5	SX5000
7	SX7000

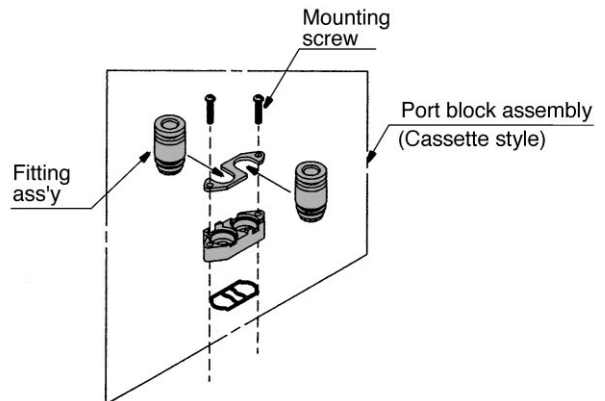
A/B port size

Symbol	Port size	Series
M5	M5 X 0.8	SX3000
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	
01	Rc(PT) 1/8	SX5000
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	SX7000
02	Rc(PT) 1/4	
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	

SX3000/5000

* In case of SX3000/5000 port block assembly, only replacement of the fittings assembly is possible. Refer to the following numbers.

SX3000	One-touch fitting for ø4	VVQ1000-50A-C4
	One-touch fitting for ø6	VVQ1000-50A-C6
SX5000	One-touch fitting for ø4	VVQ1000-51A-C4
	One-touch fitting for ø6	VVQ1000-51A-C6
	One-touch fitting for ø8	VVQ1000-51A-C8



⚠ Caution

Mounting screw tightening torque

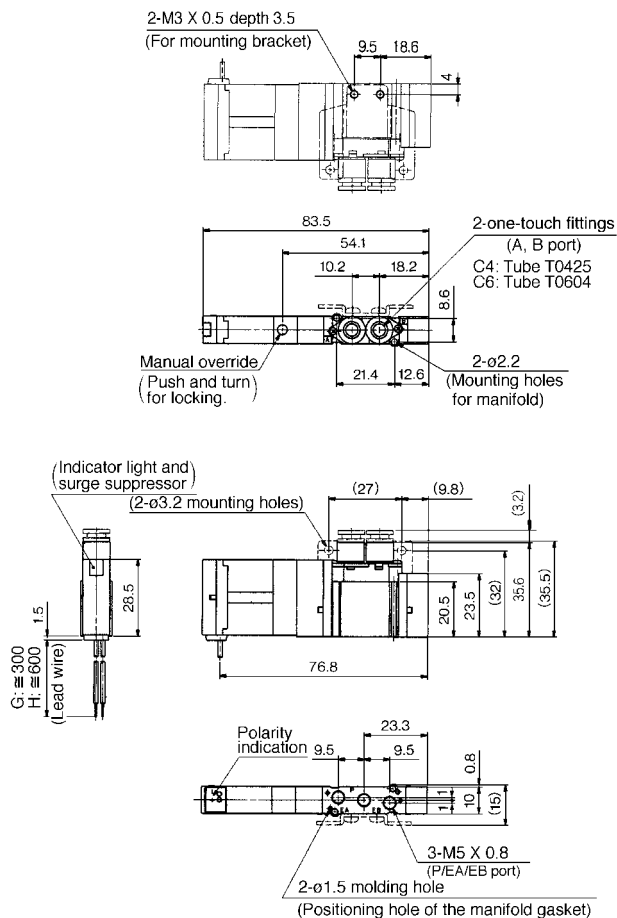
M2: 0.15Nm
M3: 0.6Nm
M4: 1.4Nm

SX3000/5000/7000 Body Ported Valve

Dimensions/Series SX3000

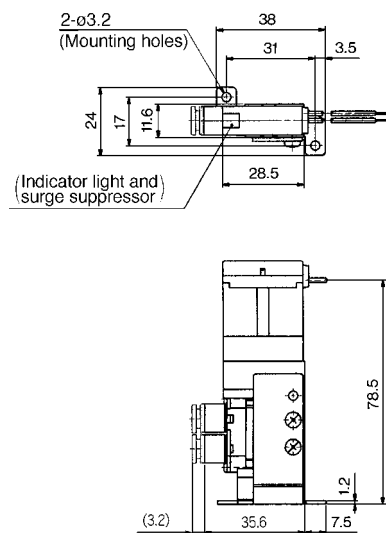
2 position single

Grommet (G), (H): SX3120-□_G□□□ - C₄ C₆ (-F2)

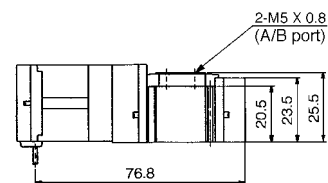


With foot bracket

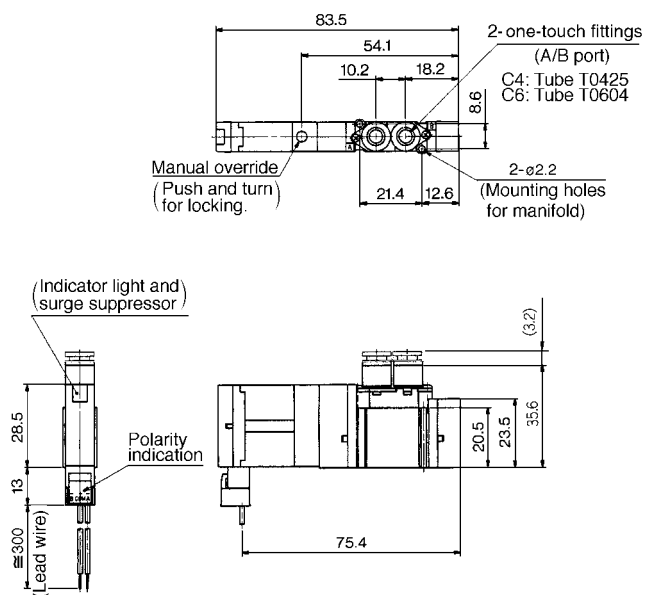
SX3120-□_G□□□ - C₄ F1



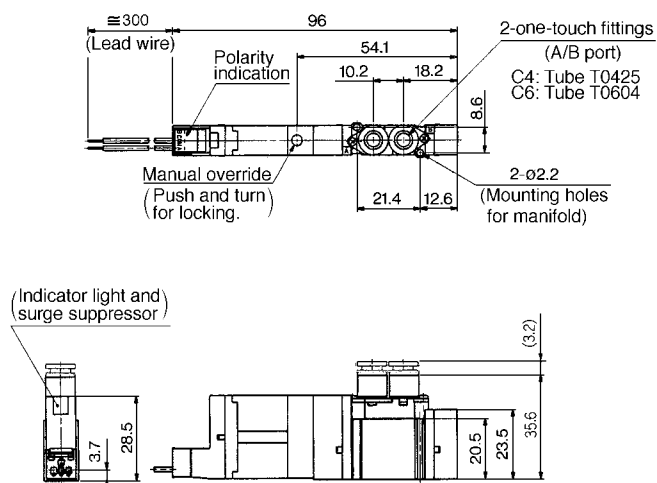
SX3120-□_G□□□ - M5



L plug connector (L): SX3120-□L□□□ - C₄ C₆



M plug connector (M): SX3120-□M□□□ - C₄ C₆



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

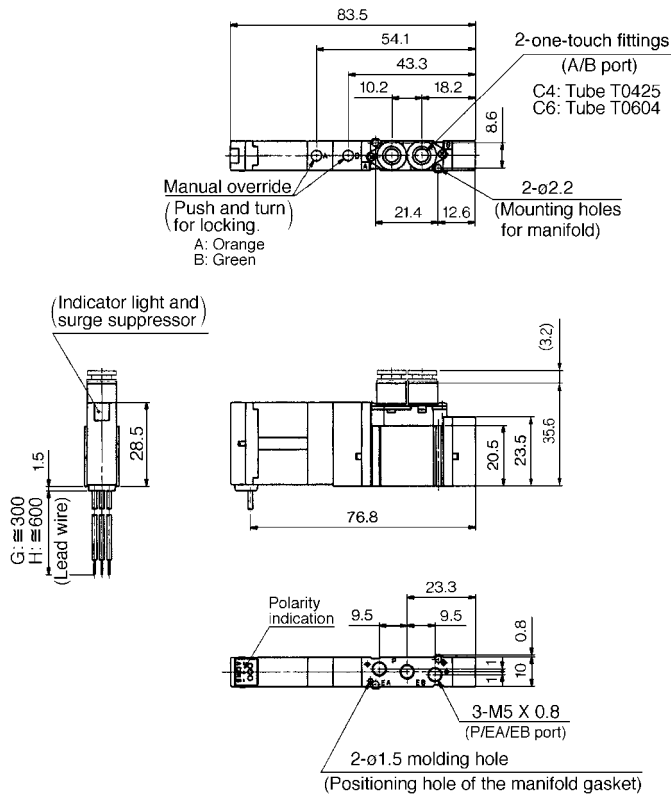
VS7

SX3000/5000/7000

Dimensions/Series SX3000

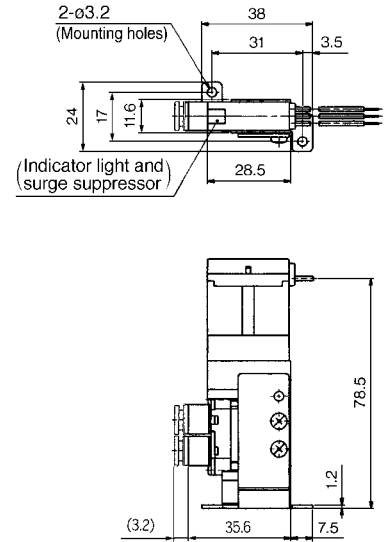
2 position double

Grommet (G), (H): SX3220-□^G□□ - C₄

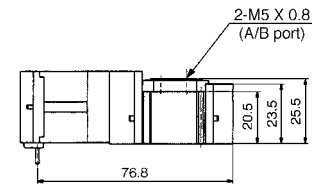


With foot bracket

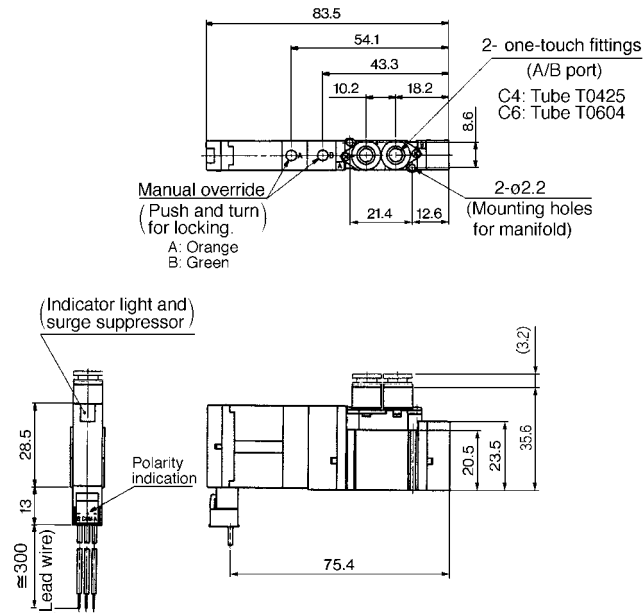
SX3220-□^G□□ - C₄-F1



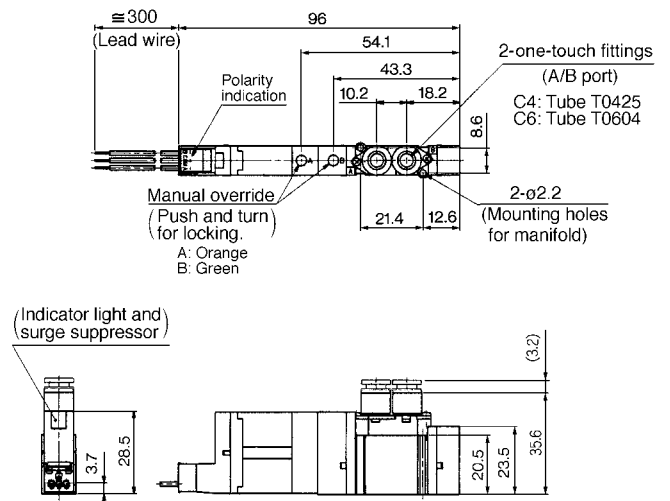
SX3220-□^G□□ - M5



L plug connector (L): SX3220-□L□□ - C₄



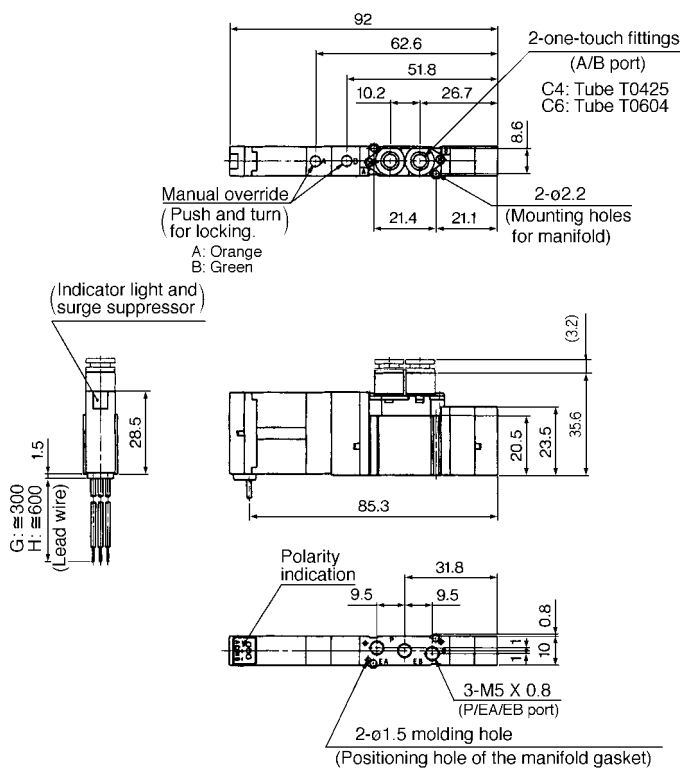
M plug connector (M): SX3220-□M□□ - C₄



SX3000/5000/7000 Body Ported Valve

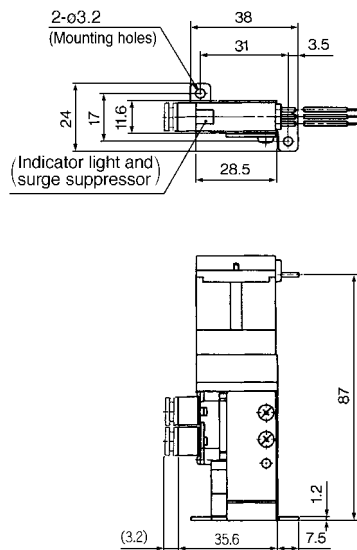
3 position closed center/exhaust center/pressure center

Grommet (G), (H): $SX3\frac{3}{4}20-\square^G_H\square\square-C_4$

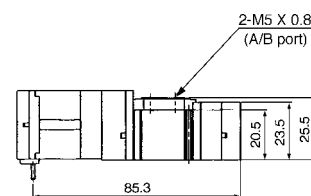


With foot bracket

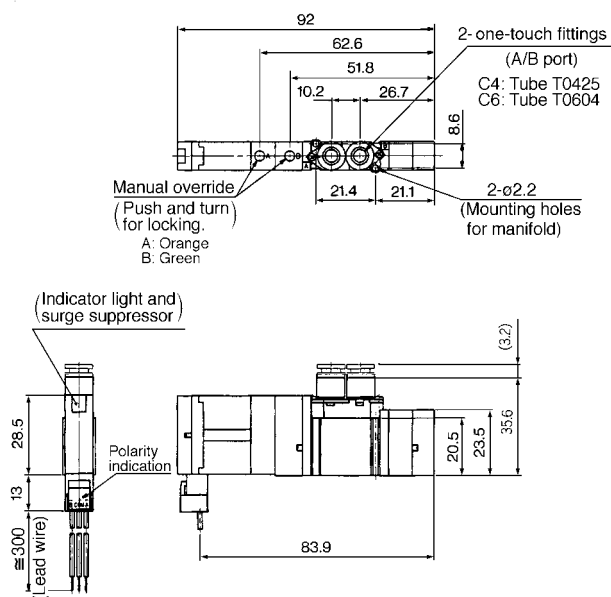
$SX3\frac{3}{4}20-\square^G_H\square\square-C_4-F1$



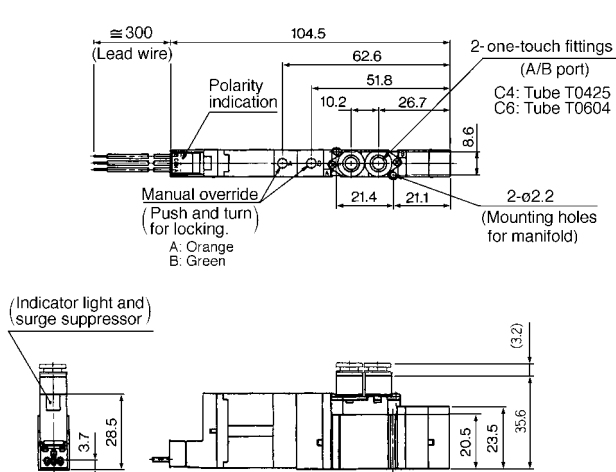
$SX3\frac{3}{4}20-\square^G_H\square\square-M5$



L plug connector (L): $SX3\frac{3}{4}20-\square^L\square\square-C_4$



M plug connector (M): $SX3\frac{3}{4}20-\square^M\square\square-C_4$



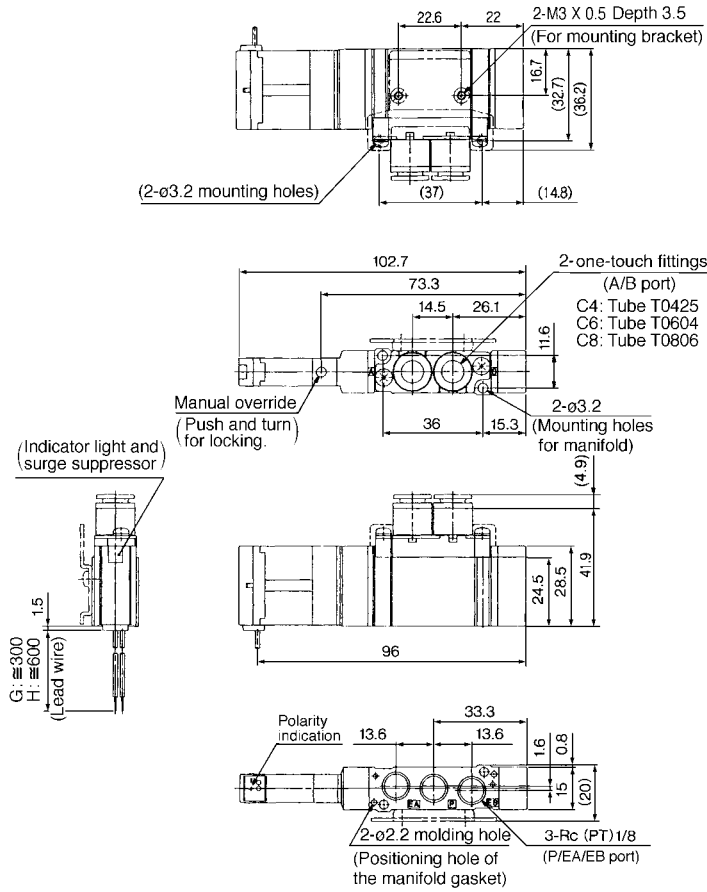
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

SX3000/5000/7000

Dimensions/Series SX5000

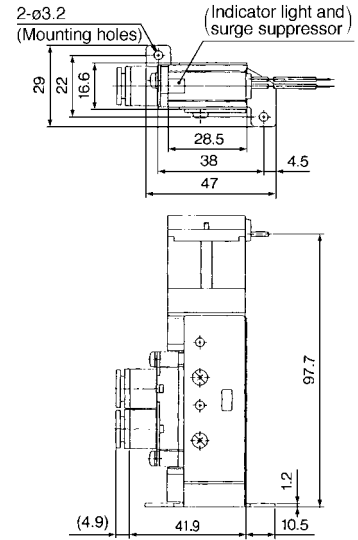
2 position single

Grommet (G), (H): SX5120-□_G□□□ - ^{C4}_{C6}^{C8} (-F2)

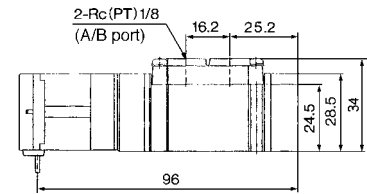


With foot bracket

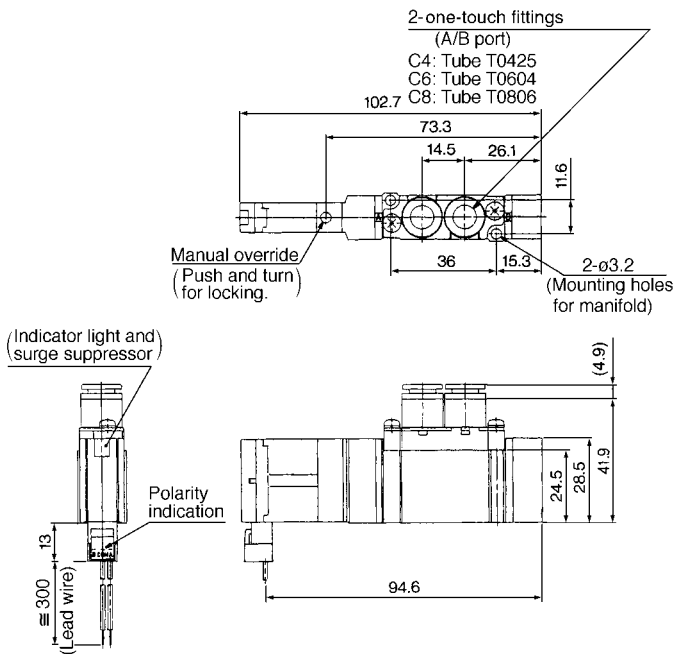
SX5120-□_G□□□ - ^{C4}_{C6}^{C8} -F1



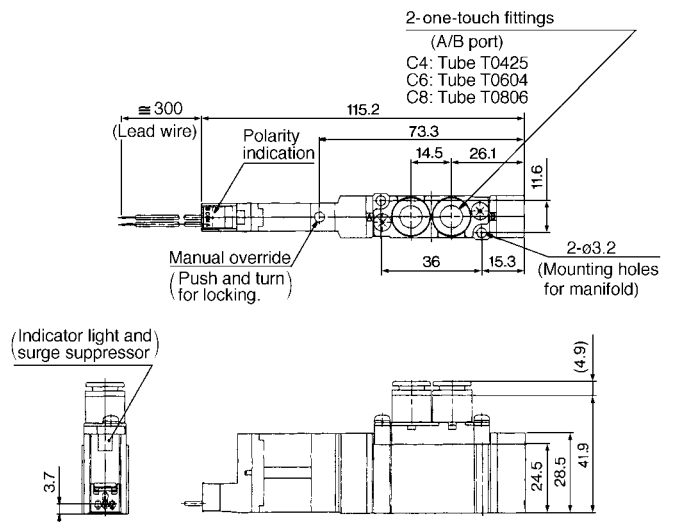
SX5120-□_G□□□ -01



L plug connector (L): SX5120-□L□□□ - ^{C4}_{C6}^{C8}



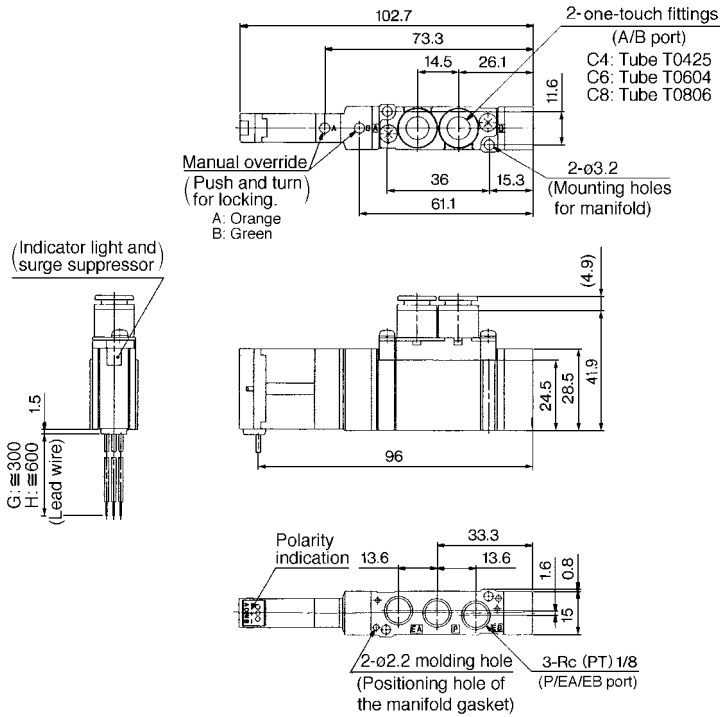
M plug connector (M): SX5120-□M□□□ - ^{C4}_{C6}^{C8}



SX3000/5000/7000 Body Ported Valve

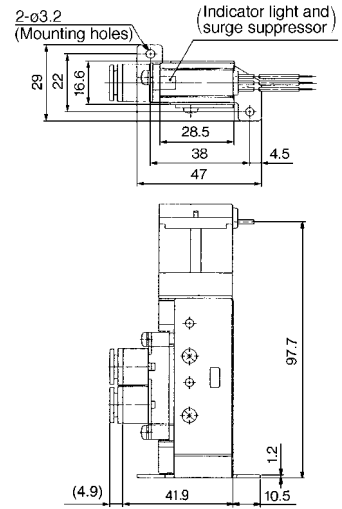
2 position double

Grommet (G), (H): SX5220-□^G□^H□□ - C4
C6
C8

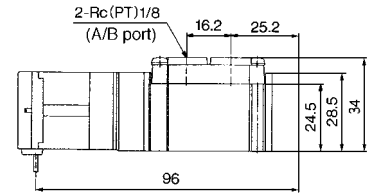


With foot bracket

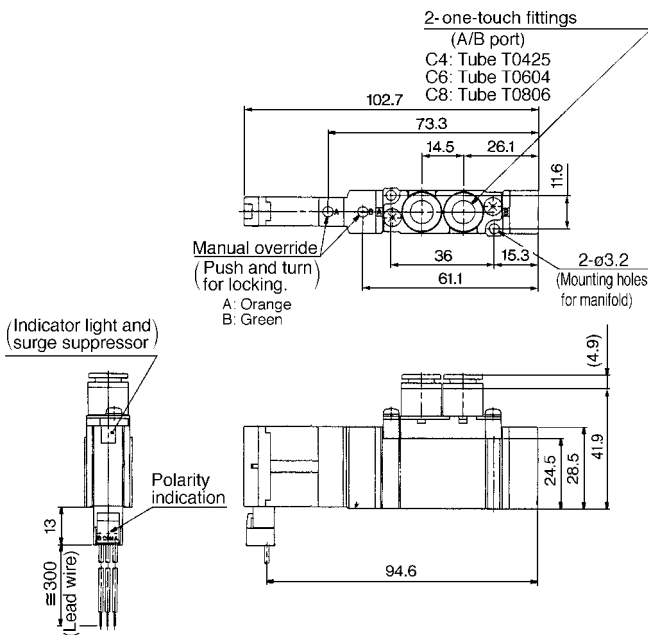
SX5220-□^G□^H□□ - F1
C4
C6
C8



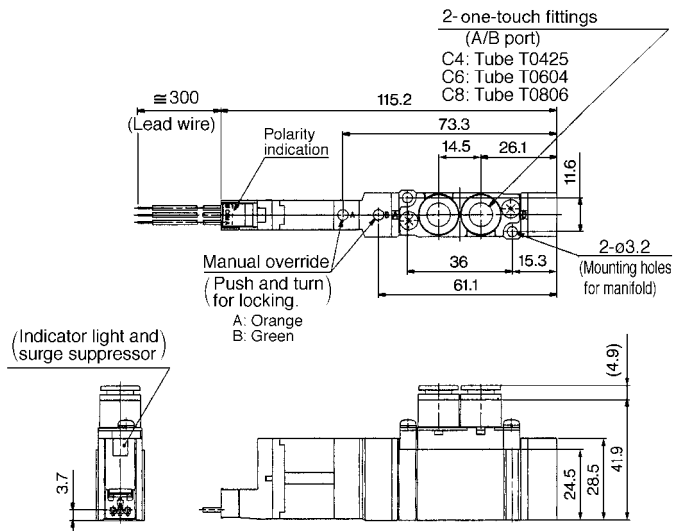
SX5220-□^G□^H□□ - 01



L plug connector (L): SX5220-□^L□□ - C4
C6
C8



M plug connector (M): SX5220-□^M□□ - C4
C6
C8



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

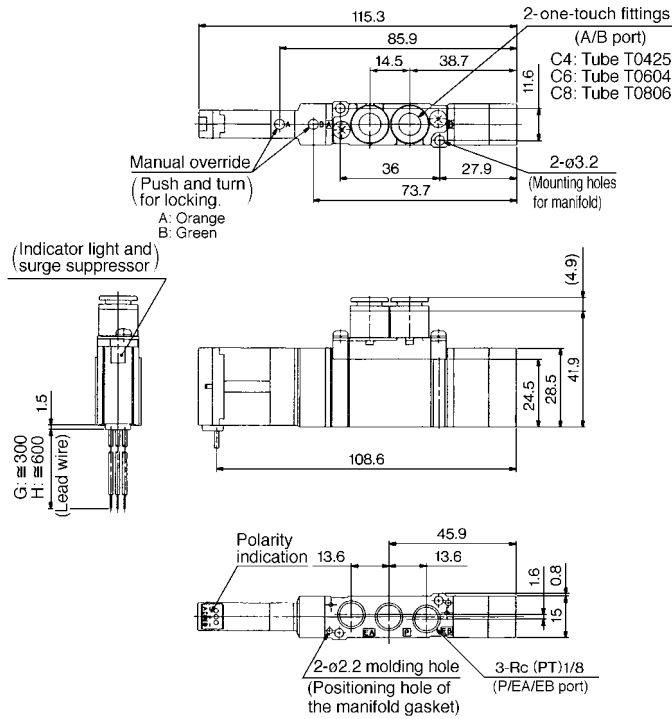
VS7

SX3000/5000/7000

Dimensions/Series SX5000

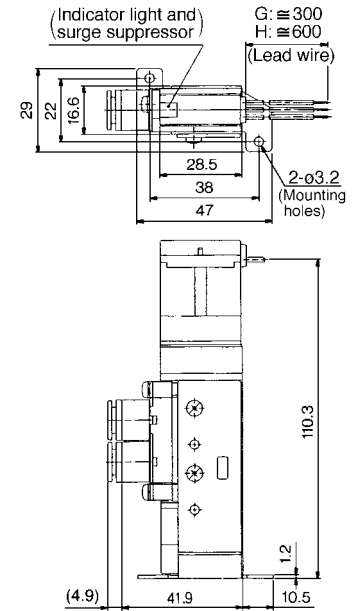
3 position closed center/exhaust center/pressure center

Grommet (G), (H): $SX5 \frac{3}{4} 20-\square \square \square \square - \square \square \square \square$
C4
C6
C8

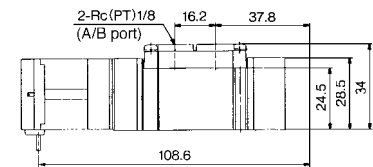


With foot bracket

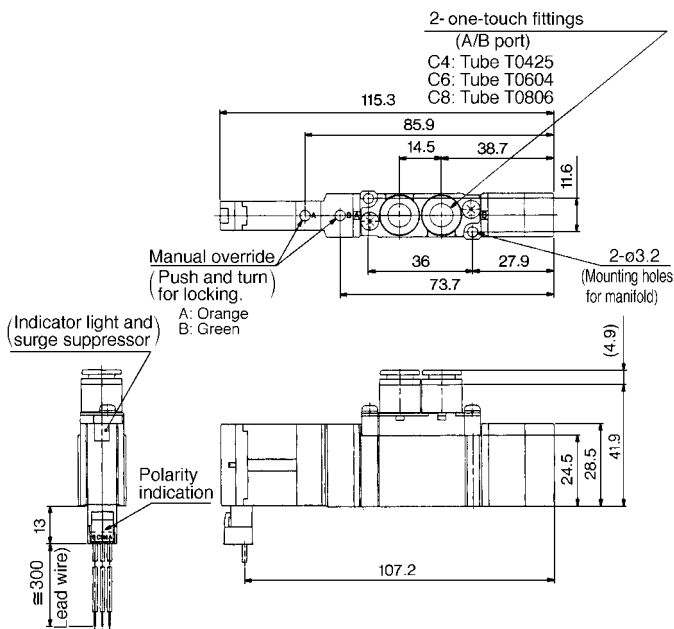
$SX5 \frac{3}{4} 20-\square \square \square \square - F1$
C4
C6
C8



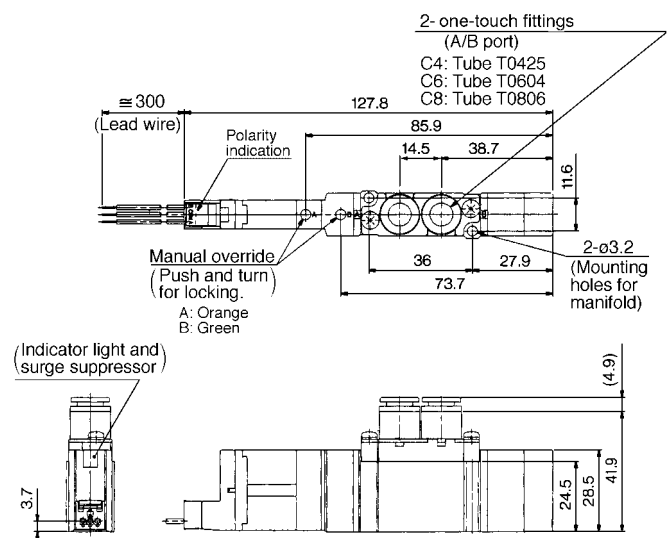
$SX5 \frac{3}{4} 20-\square \square \square \square - 01$



L plug connector (L): $SX5 \frac{3}{4} 20-\square \square \square \square - \square \square \square \square$
C4
C6
C8



M plug connector (M): $SX5 \frac{3}{4} 20-\square \square \square \square - \square \square \square \square$
C4
C6
C8

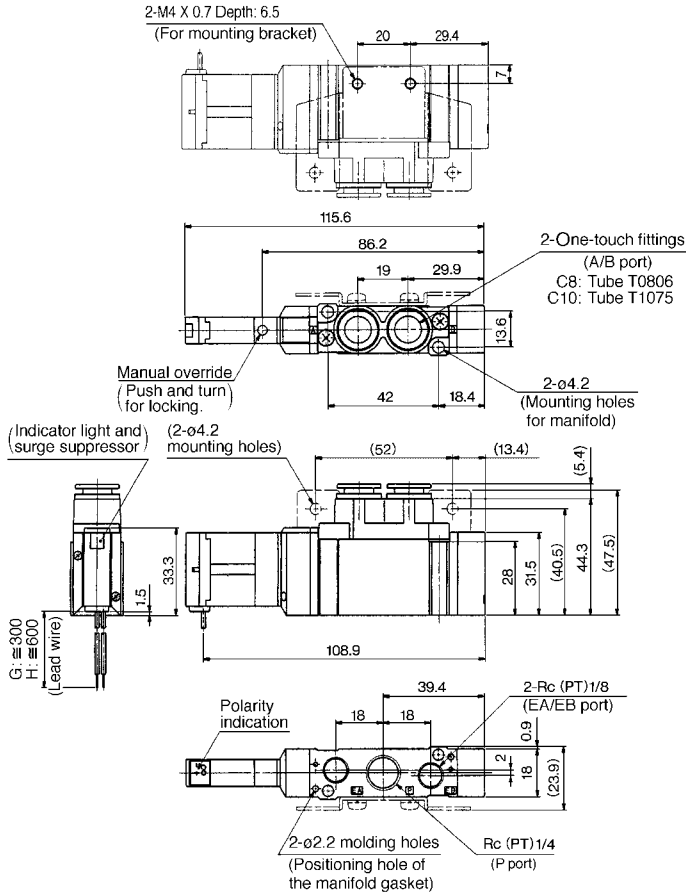


SX3000/5000/7000 Body Ported Valve

Dimensions/Series SX7000

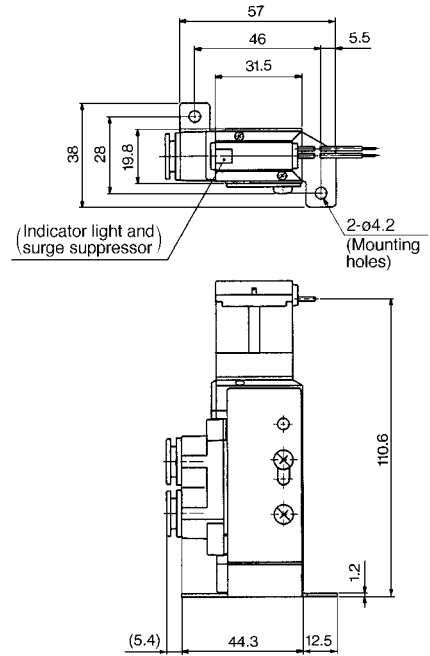
2 position single

Grommet (G), (H): SX7120-□^G□^H□□ - C⁸₁₀ (-F2)

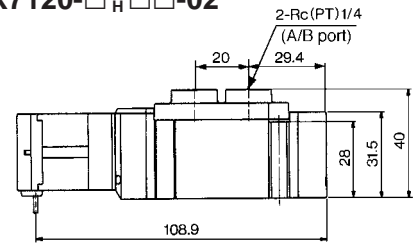


With foot bracket

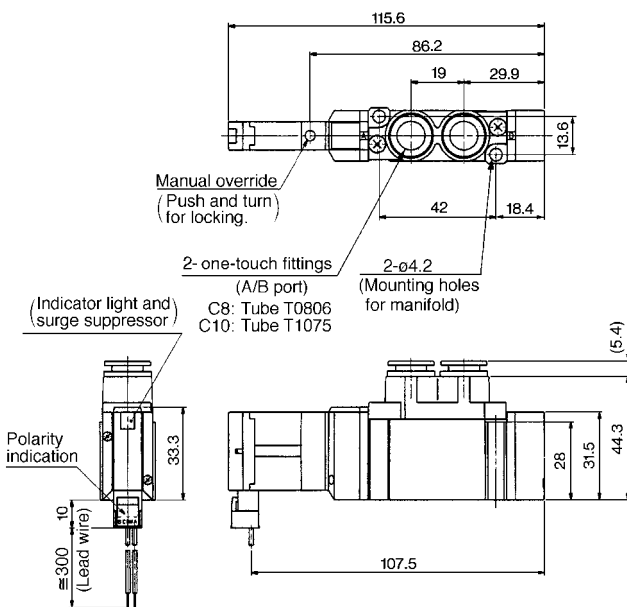
SX7120-□^G□^H□□ - C⁸₁₀ -F1



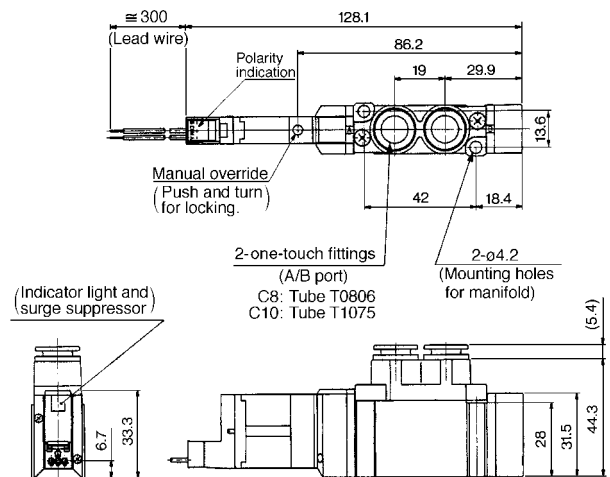
SX7120-□^G□^H□□ -02



L plug connector (L): SX7120-□L□□ - C⁸₁₀



M plug connector (M): SX7120-□M□□ - C⁸₁₀



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

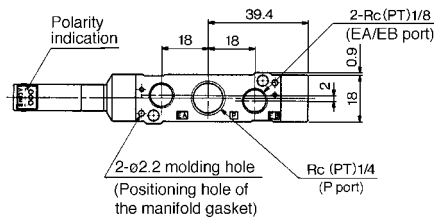
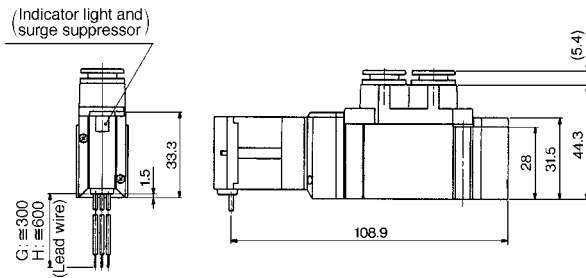
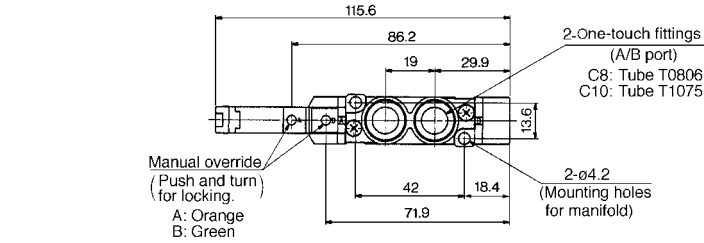
VS7

SX3000/5000/7000

Dimensions/Series SX7000

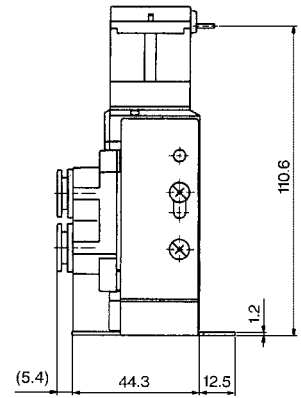
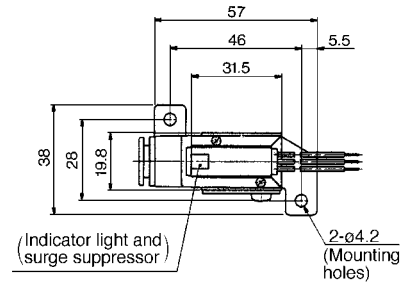
2 position double

Grommet (G), (H): SX7220-□_G□□□ - C₈
C₁₀

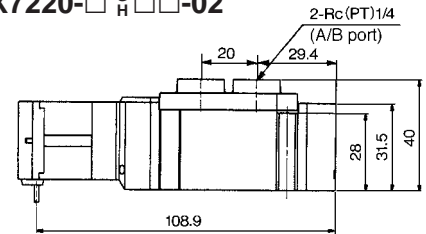


With foot bracket

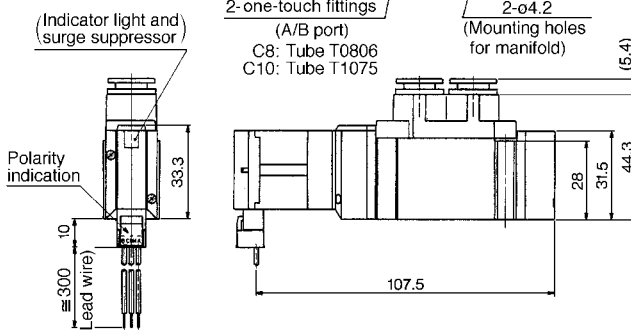
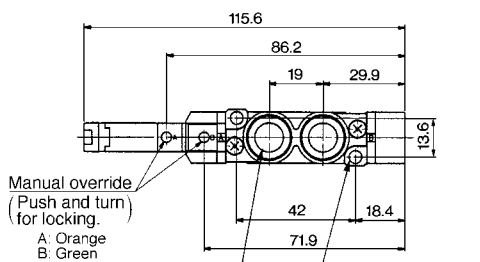
SX7220-□_G□□□ - C₈
C₁₀ -F1



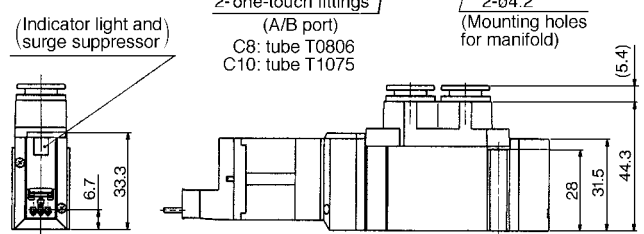
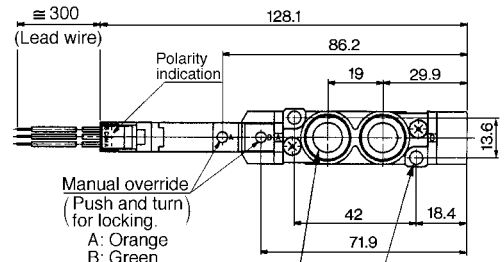
SX7220-□_G□□□ -02



L plug connector (L): SX7220-□_L□□□ - C₈
C₁₀



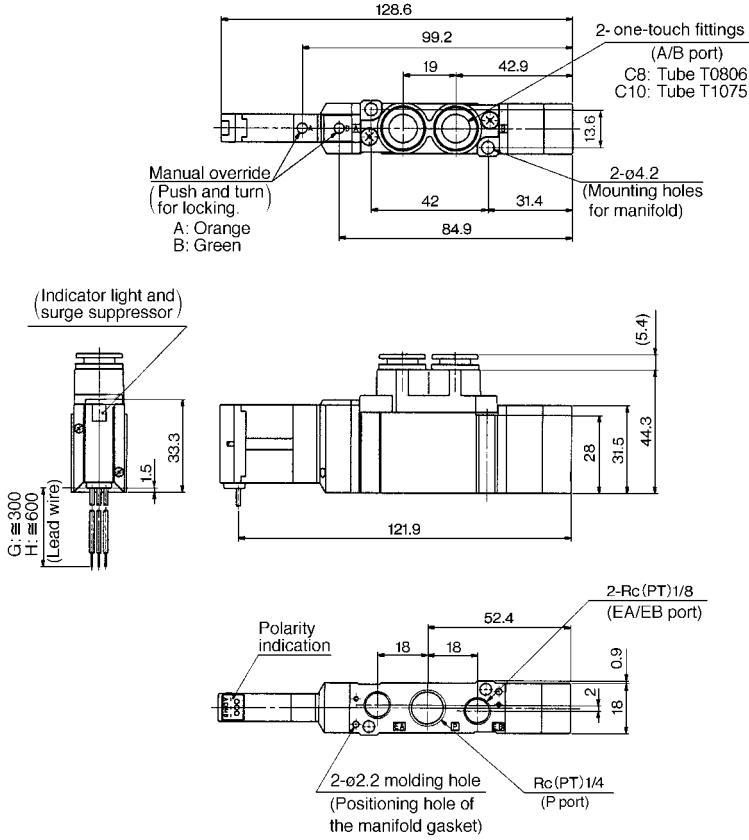
M plug connector (M): SX7220-□_M□□□ - C₈
C₁₀



SX3000/5000/7000 Body Ported Valve

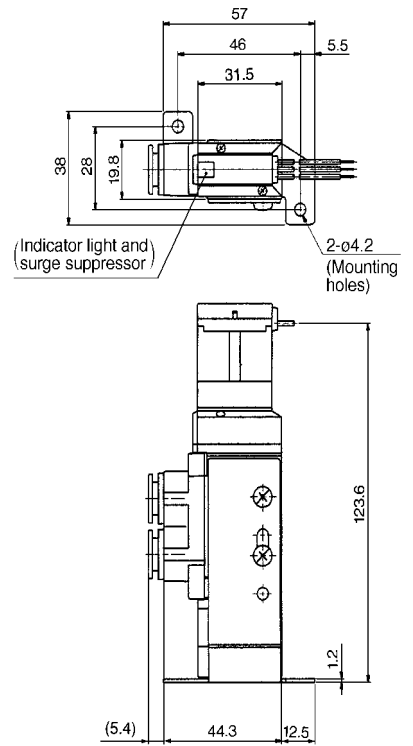
3 position closed center/exhaust center/pressure center

Grommet (G), (H): $SX7 \frac{3}{4} 20-\square \square \square -C8$

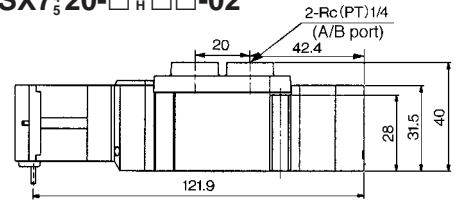


With foot bracket

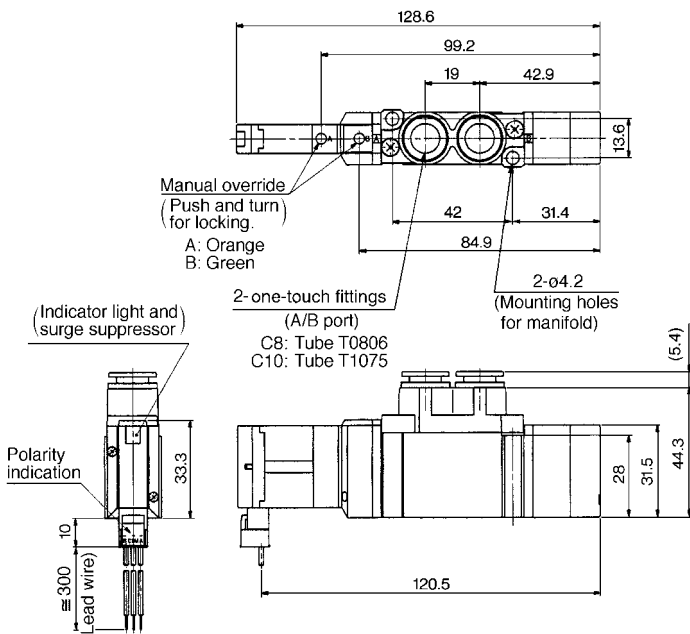
$SX7 \frac{3}{4} 20-\square \square \square -C8$ -F1



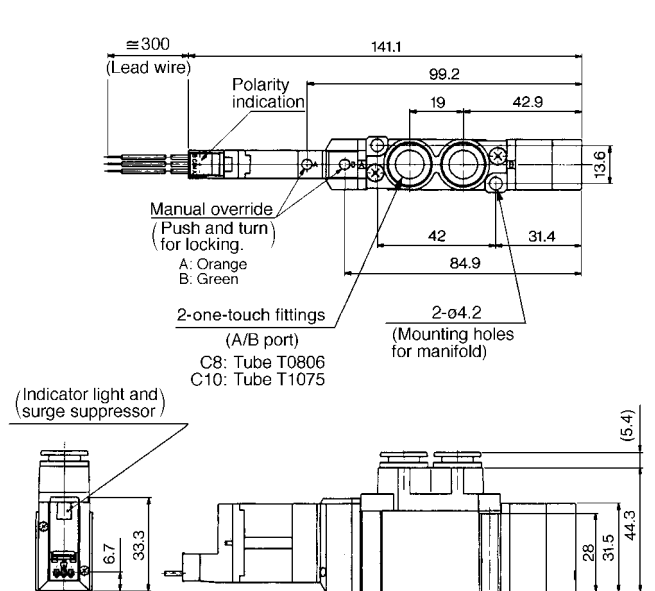
$SX7 \frac{3}{4} 20-\square \square \square -02$



L plug connector (L): $SX7 \frac{3}{4} 20-\square L \square \square -C8$



M plug connector (M): $SX7 \frac{3}{4} 20-\square M \square \square -C8$



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

SX3000/5000/7000

Base Mounted Valve

How to Order

SX 5 2 40 [] 5 N L [] [] []

Series

3	SX3000
5	SX5000
7	SX7000

Configuration

1	2 position single (A)(B) 4 2 5 1 3 (EA)(P)(EB)
2	2 position double (A)(B) 4 2 5 1 3 (EA)(P)(EB)
3	3 position closed center (A)(B) 4 2 5 1 3 (EA)(P)(EB)
4	3 position exhaust center (A)(B) 4 2 5 1 3 (EA)(P)(EB)
5	3 position pressure center (A)(B) 4 2 5 1 3 (EA)(P)(EB)

Pilot


—	Internal pilot
R	External pilot

Rated voltage

5	24V DC
6	12V DC
V	6V DC
S	5V DC
R	3V DC

Common specification

—	Positive common
N	Negative common

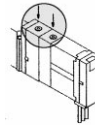
 Note) Put nothing for single grommet style and single without indicator light and surge suppressor.

Port size

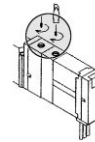
Symbol	Port size	Series
—	Without subplate	
01	Rc(PT) 1/8 With subplate	SX3000
02	Rc(PT) 1/4 With subplate	SX5000 SX7000
03	Rc(PT) 3/8 With subplate	SX7000

Manual override

—: Non-locking push style



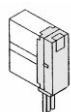
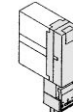
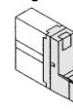
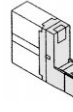
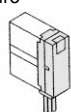
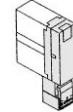
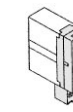
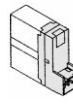
D: Push-turn-locking slotted style




Indicator light and surge voltage suppressor

—	Without indicator light and surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light and surge voltage suppressor

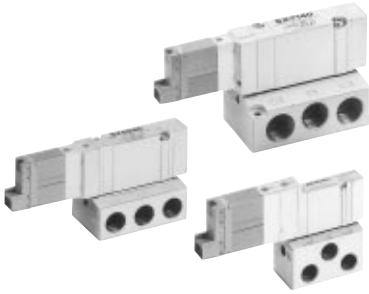
Electrical entry

Grommet	L plug connector	M plug connector	
G: 300mm lead wire 	L: 300mm lead wire 	M: With lead wire (Length: 300mm) 	MN: Without lead wire 
H: 600mm lead wire 	LN: Without lead wire 	LO: Without connector 	MO: Without connector 

 * The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.

SX3000/5000/7000 Base Mounted Valve

Specifications



P.1.3-112 to 1.3-126

Series		SX3000	SX5000	SX7000
Fluid		Air		
Internal pilot operating pressure range (MPa)	2 position single	0.15 to 0.7		
	2 position double	0.1 to 0.7		
	3 position	0.2 to 0.7		
External pilot operating pressure range (MPa)	Operating pressure range		-100kPa to 0.7	
	Pilot pressure range	2 position single	0.25 to 0.7	
		2 position double	0.25 to 0.7	
		3 position	0.25 to 0.7	
Ambient and fluid temperature °C		Max. 50		
Max. operating frequency (Hz)	2 position single, double	10	5	5
	3 position	3	3	3
Manual override		Non-locking push style, Push-turn-locking slotted style		
Pilot exhaust	Internal pilot	Common exhaust for main and pilot valve		
	External pilot	Individual exhaust for pilot valve		
Lubrication		Not required		
Mounting position		Free		
Impact/Vibration resistance (m/s ²)		150/30		
Protection structure		Dust proof		



Note) Shock resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states.

Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed at both energized and de-energized states to the axis and right angle direction of the main valve and armature. (Value in the initial stage.)

Solenoid Specifications

Electrical entry		Grommet (G)/(H), L plug connector (L), M plug connector (M)
Coil rated voltage (V)	DC	24, 12, 6, 5, 3
Allowable voltage		±10% rated voltage
Power consumption (W)	DC	0.6 (With light: 0.65)
Surge voltage suppressor		Diode
Indicator light		LED

Response Time



Note) According to JISB8375-1981, kinetic ability test (Coil test: 20°C, at rated voltage)

SX3000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	12 or less	15 or less
2 position double	10 or less	13 or less
3 position	15 or less	20 or less

SX5000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	19 or less	26 or less
2 position double	18 or less	22 or less
3 position	32 or less	38 or less

SX7000

Configuration	Response time (ms) (0.5MPa)	
	Without indicator light and surge voltage suppressor	W/ indicator light and surge suppressor S, Z type
2 position single	31 or less	38 or less
2 position double	27 or less	30 or less
3 position	50 or less	56 or less

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

SX3000/5000/7000

Series SX3000

Valve	Configuration		Port size	Effective area (mm ²) (Cv factor) ⁽¹⁾		Weight (g) ⁽²⁾	
				P→A/B	A/B→EA/EB	Grommet	L, M plug connector
SX3□40-□-01	2 position	Single	Rc(PT) 1/8	4.86 (0.27)	5.4 (0.3)	100 (66)	101 (67)
		Double		4.86 (0.27)	5.4 (0.3)	108 (74)	110 (75)
	3 position	Closed center		4.68 (0.26)	4.86 (0.27)	111 (76)	112 (78)
		Exhaust center		4.86 (0.27)	5.94 (0.33) [3.24 (0.18)]		
		Pressure center		6.66 (0.37) [3.24 (0.18)]	5.22 (0.29)		



Note 1) []: Normal position Note 2) (): Without subplate

Series SX5000

Valve	Configuration		Port size	Effective area (mm ²) (Cv factor) ⁽¹⁾		Weight (g) ⁽²⁾	
				P→A/B	A/B→EA/EB	Grommet	L, M plug connector
SX5□40-□-02	2 position	Single	Rc(PT) 1/4	12.78 (0.71)	12.6 (0.7)	136 (74)	137 (75)
		Double		12.78 (0.71)	12.6 (0.7)	144 (82)	145 (83)
	3 position	Closed center		7.56 (0.42)	8.1 (0.45)	149 (87)	151 (89)
		Exhaust center		7.92 (0.44)	14.4 (0.8) [9.0 (0.5)]		
		Pressure center		15.84 (0.88) [4.5 (0.25)]	8.64 (0.48)		



Note 1) []: Normal position Note 2) (): Without subplate

Series SX7000

Valve	Configuration		Port size	Effective area (mm ²) (Cv factor) ⁽¹⁾		Weight (g) ⁽²⁾	
				P→A/B	A/B→EA/EB	Grommet	L, M plug connector
SX7□40-□-02 03	2 position	Single	Rc(PT) 1/4 Rc(PT) 3/8	23.22 (1.29)	21.6 (1.2)	222 (100)	223 (101)
		Double		23.22 (1.29)	21.6 (1.2)	229 (107)	231 (109)
	3 position	Closed center		14.04 (0.78)	12.24 (0.68)	238 (116)	240 (118)
		Exhaust center		14.04 (0.78)	20.88 (1.16) [12.96 (0.72)]		
		Pressure center		24.48 (1.36) [13.5 (0.75)]	12.42 (0.69)		



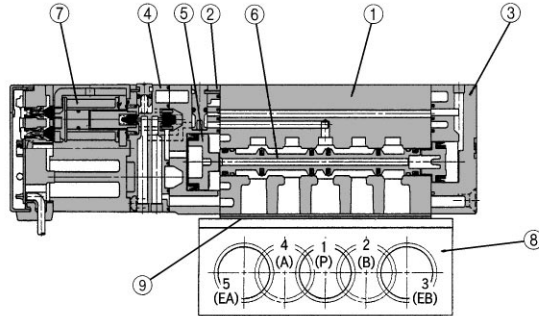
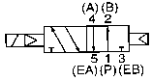
Note 1) []: Normal position Note 2) (): Without subplate

SX3000/5000/7000 Base Mounted Valve

Construction

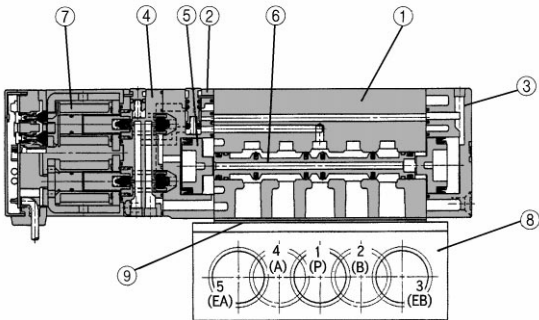
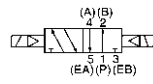
2 position single

Symbol
2 position single



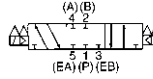
2 position double

Symbol
2 position double

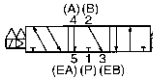


3 position closed center/exhaust center/pressure center

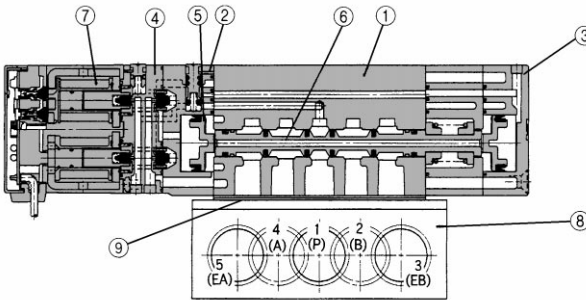
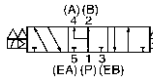
Symbol
3 position closed center



3 position exhaust center



3 position pressure center



(In case of closed center)

Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast (SX3000: Zinc die cast)	White
②	Adaptor plate	Resin	White
③	End plate	Resin	White
④	Pilot body	Resin	White
⑤	Piston	Resin	—
⑥	Spool ass'y	Aluminum/NBR	—
⑦	Mold coil	Resin	Gray

Replacement Parts

No.	Description	Part No.			Note
		SX3□40	SX5□40	SX7□40	
⑧	Subplate	SY3000-27-1	SY5000-27-1	Rc(PT) 1/4: SY7000-27-1 Rc(PT) 3/8: SY7000-27-2	Aluminum die cast
⑨	Gasket	SY3000-11-8	SY5000-11-2	SY7000-11-2	NBR
—	Phillips head screw	SX3000-22-2 (M2 X 24)	M3 X 30	M4 X 35	For mounting valves (Matted nickel plated)

How to Order Connector Ass'y for L and M Plug Connector

Positive common

For single solenoid: SX100 - 40-4S

For double solenoid: SX100 - 40-4D
3 position

Negative common

For single solenoid: SX100 - 41-4S

For double solenoid: SX100 - 41-4D
3 position

Lead wire length ●

—	300mm
6	600mm
10	1000mm
15	1500mm
20	2000mm
25	2500mm
30	3000mm
50	5000mm



Refer to p.1.3-6 for further information on connector ass'y.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

⚠ Caution

Mounting screw tightening torque

M2: 0.15Nm

M3: 0.6Nm

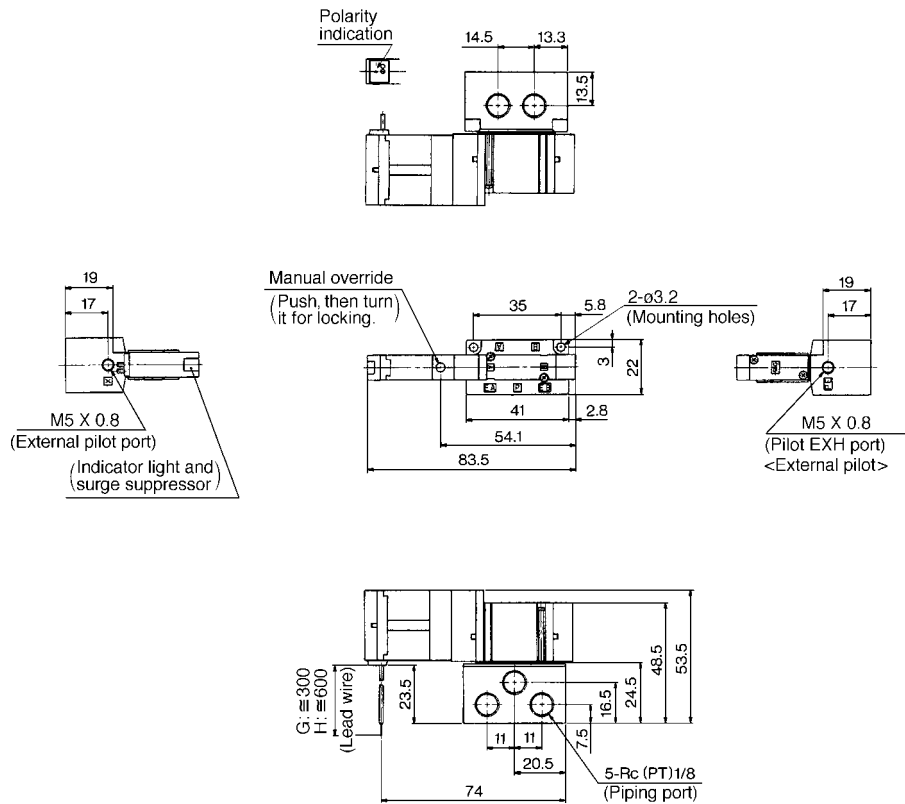
M4: 1.4Nm

SX3000/5000/7000

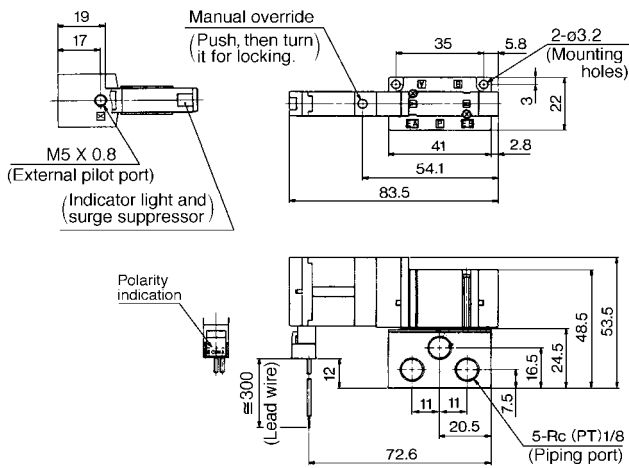
Dimensions/Series SX3000

2 position single

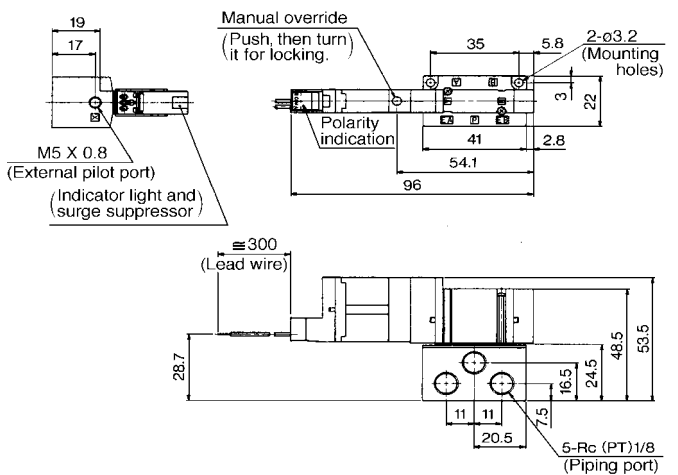
Grommet (G), (H): SX3140(R)-□^G□□-01



L plug connector (L): SX3140(R)-□L□□-01

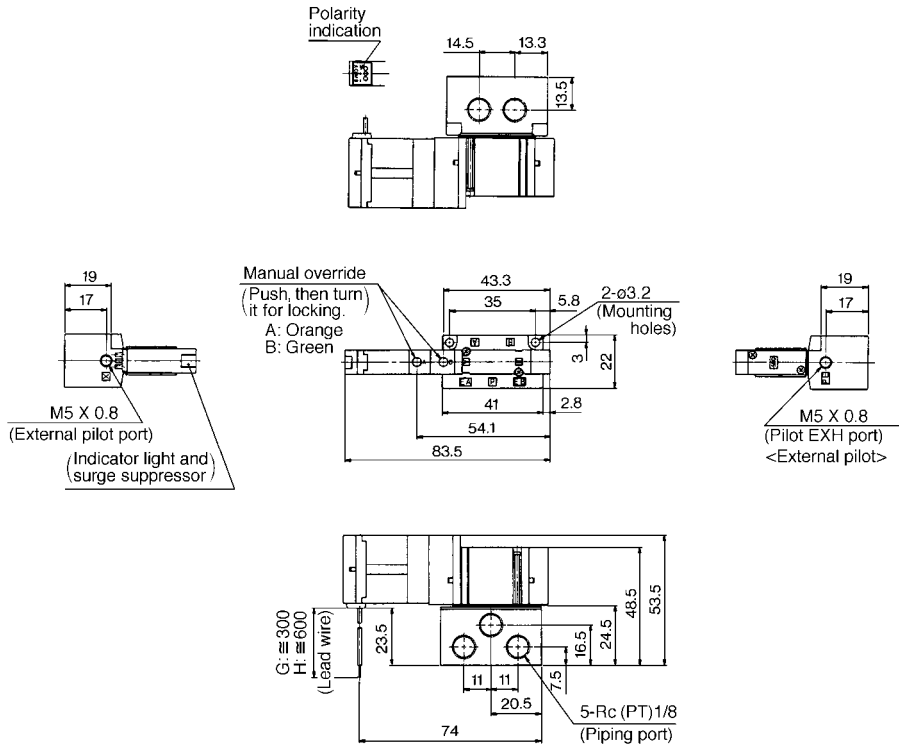


M plug connector (M): SX3140(R)-□M□□-01

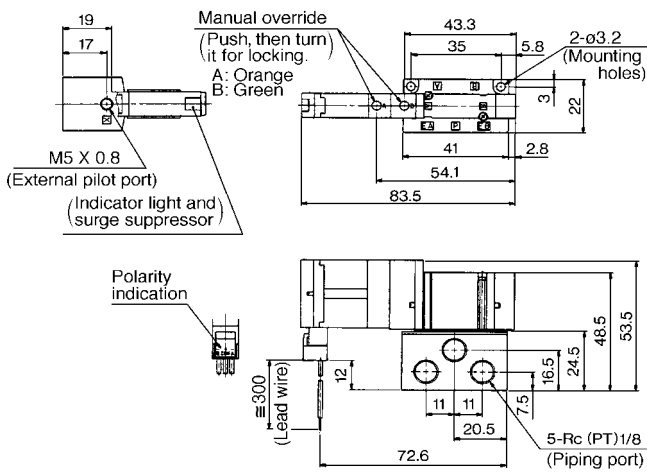


SX3000/5000/7000 Base Mounted Valve

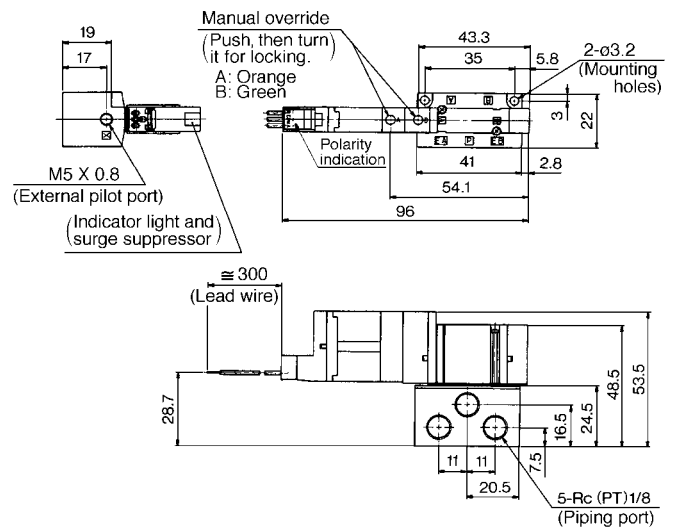
2 position double
Grommet (G), (H): SX3240(R)-□^G□□-01



L plug connector (L): SX3240(R)-□L□□-01



M plug connector (M): SX3240(R)-□M□□-01



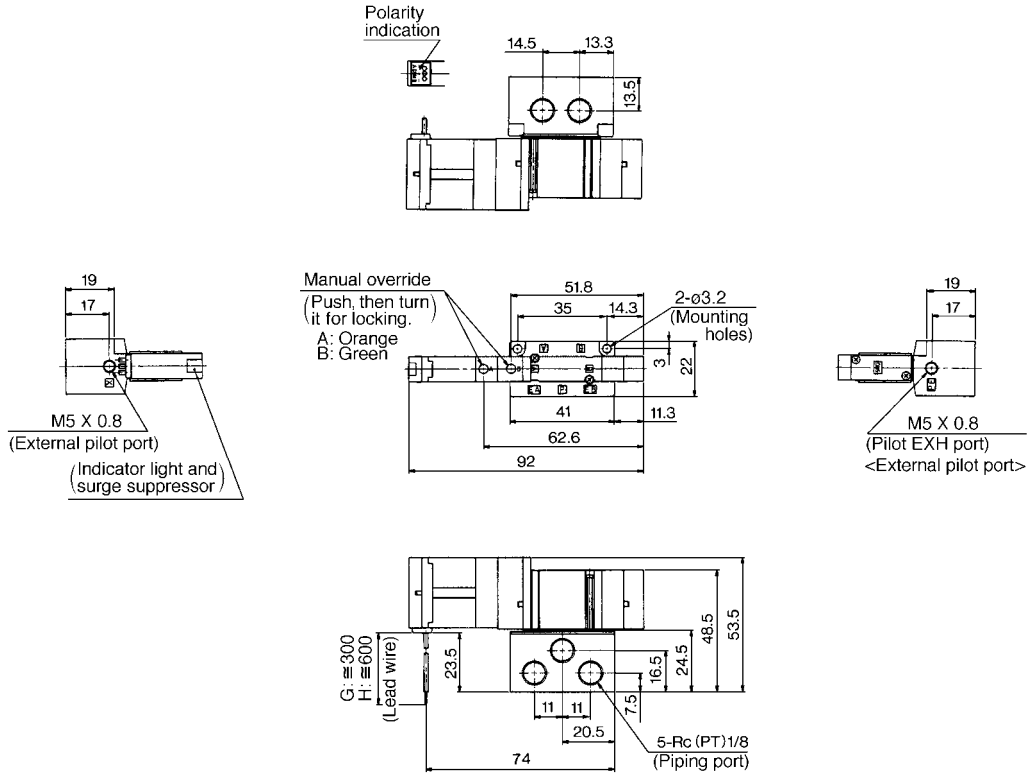
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

SX3000/5000/7000

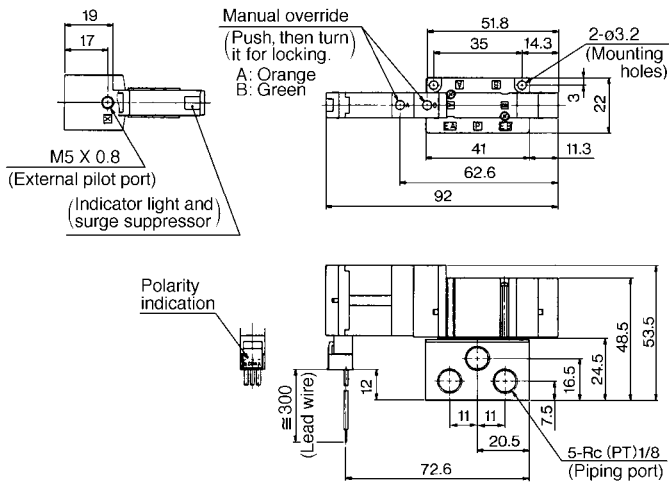
Dimensions/Series SX3000

3 position closed center/exhaust center/pressure center

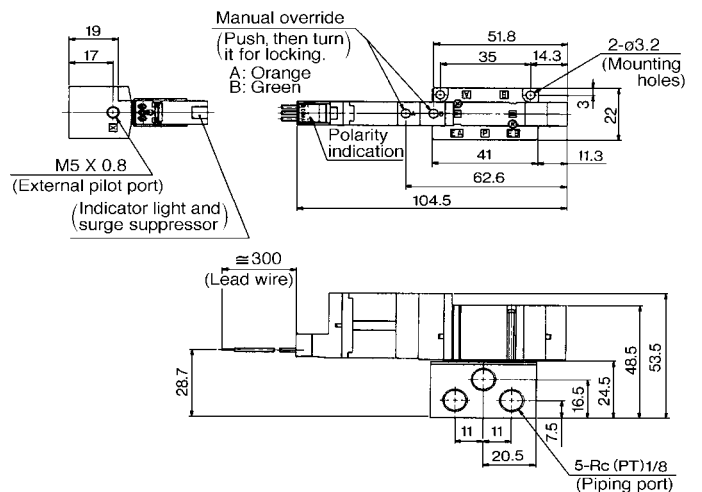
Grommet (G), (H): SX3³/₅40(R)-□^G□□-01



L plug connector (L): SX3³/₅40(R)-□L□□-01



M plug connector (M): SX3³/₅40(R)-□M□□-01

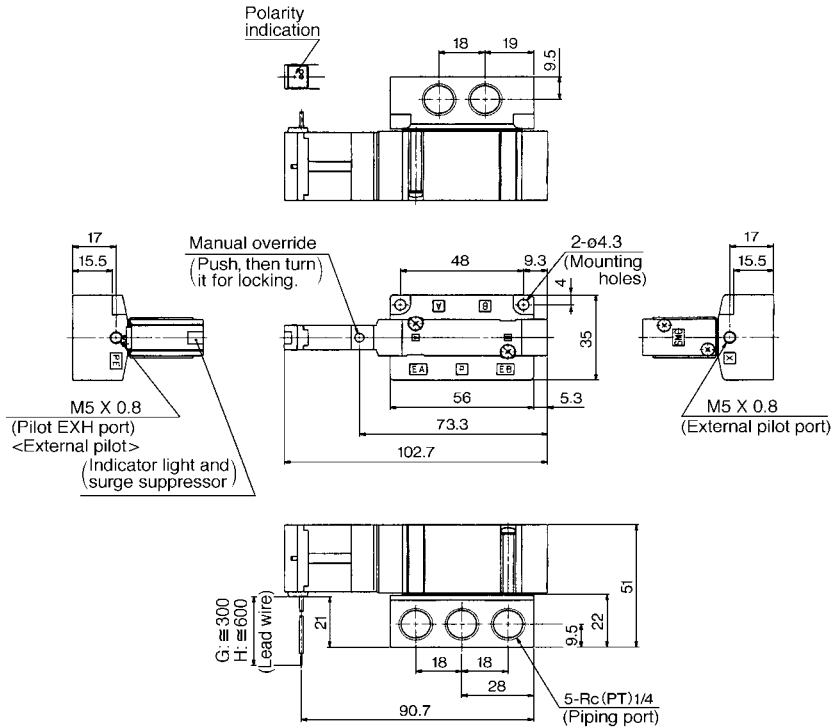


SX3000/5000/7000 Base Mounted Valve

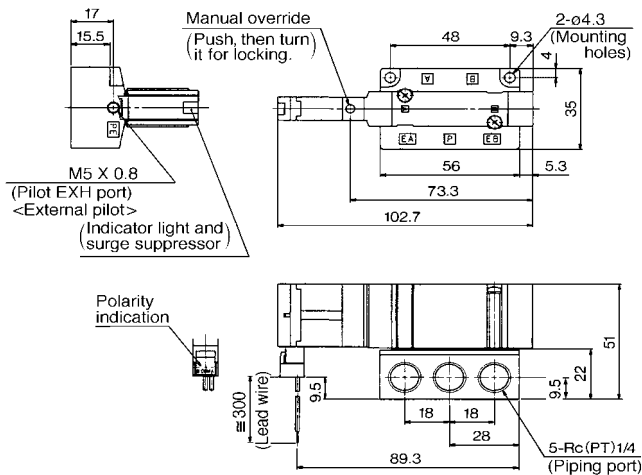
Dimensions/Series SX5000

2 position single

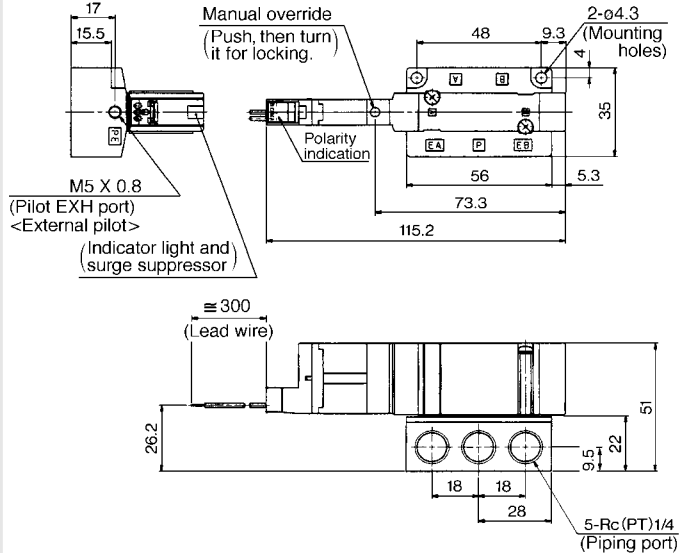
Grommet (G), (H): SX5140(R)-□^G□□-02



L plug connector (L): SX5140(R)-□L□□-02



M plug connector (M): SX5140(R)-□M□□-02



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

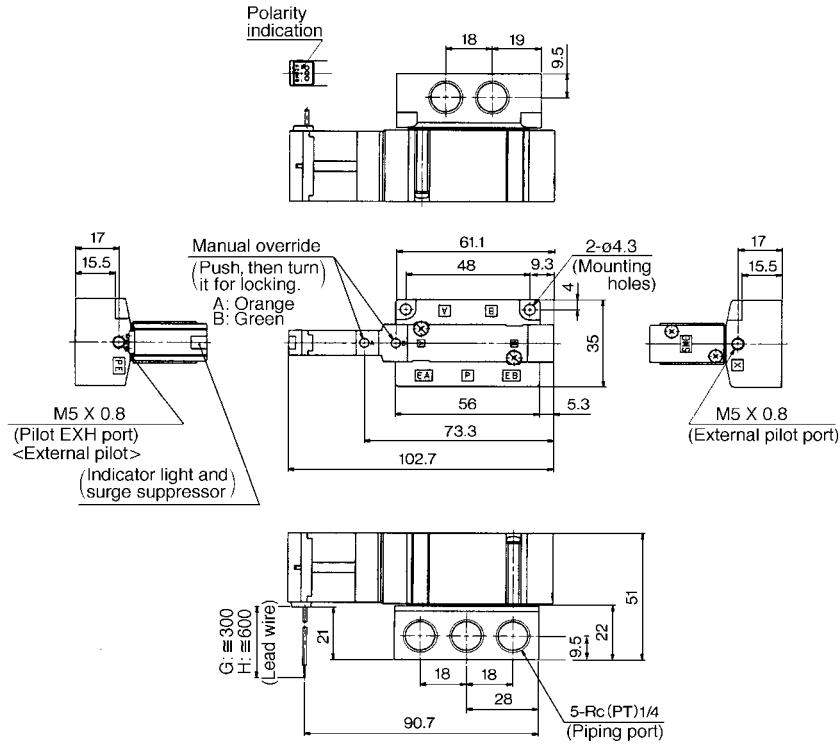
VS7

SX3000/5000/7000

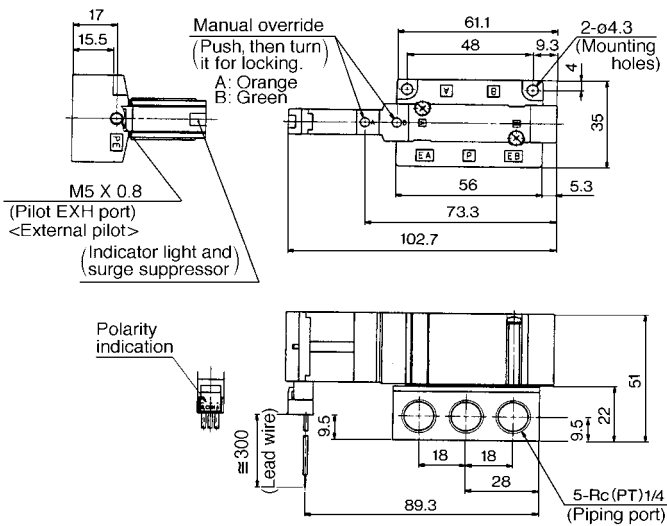
Dimensions/Series SX5000

2 position double

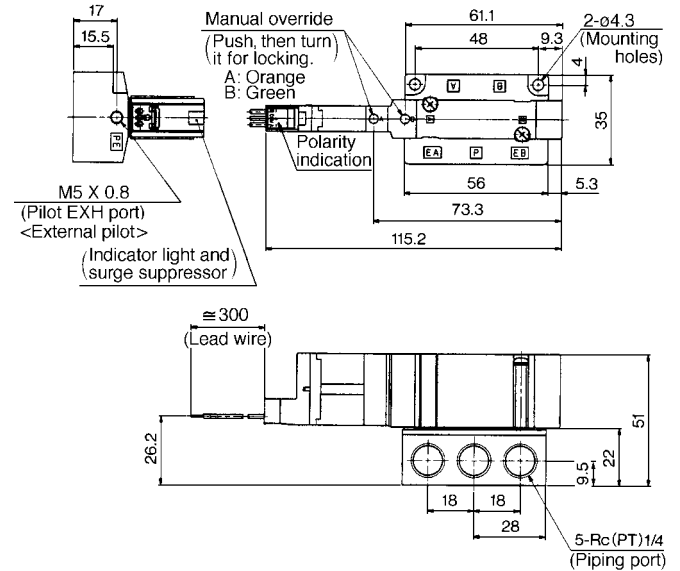
Grommet (G), (H): SX5240(R)-□^G□□-02



L plug connector (L): SX5240(R)-□L□□-02



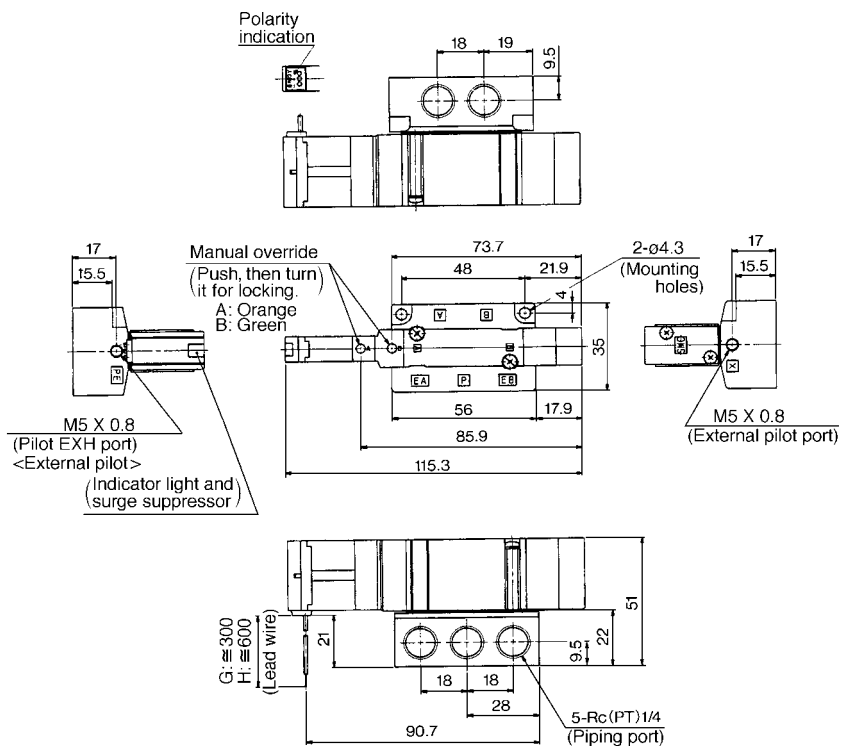
M plug connector (M): SX5240(R)-□M□□-02



SX3000/5000/7000 Base Mounted Valve

3 position closed center/exhaust center/pressure center

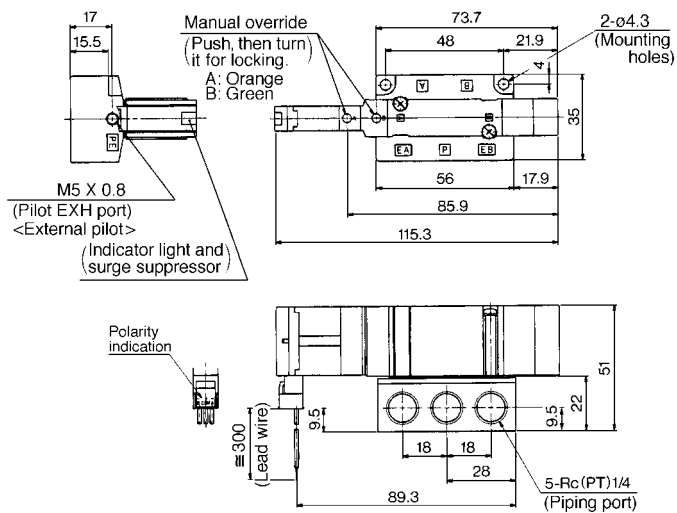
Grommet (G), (H): $SX5 \frac{3}{4} 40(R) - \square \square \square -02$



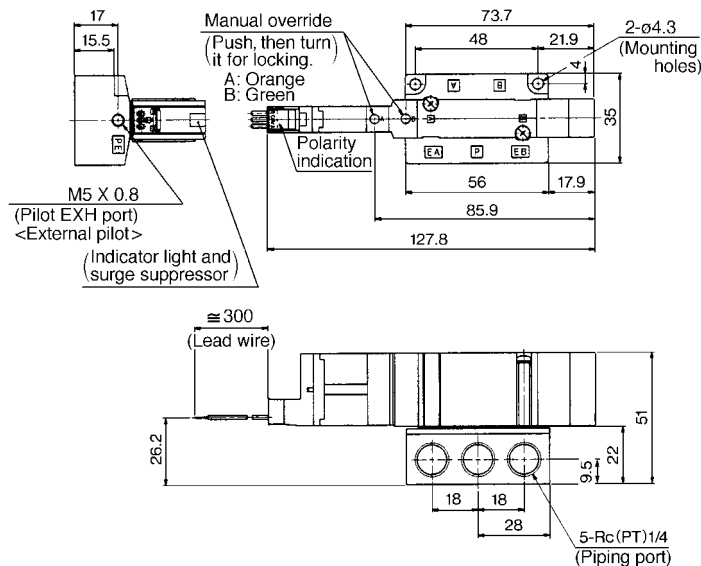
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

L plug connector (L): $SX5 \frac{3}{4} 40(R) - \square L \square \square -02$



M plug connector (M): $SX5 \frac{3}{4} 40(R) - \square M \square \square -02$

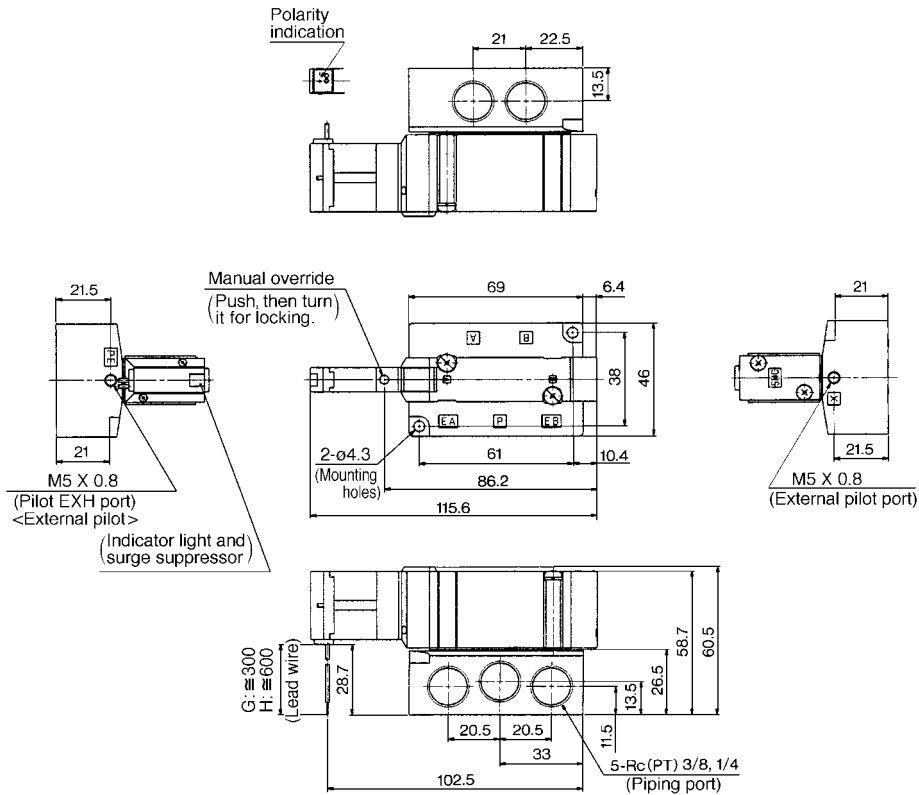


SX3000/5000/7000

Dimensions/Series SX7000

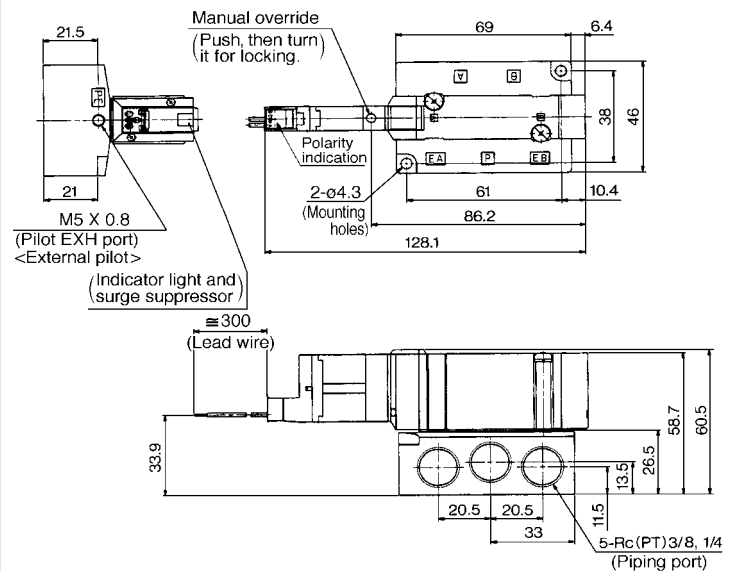
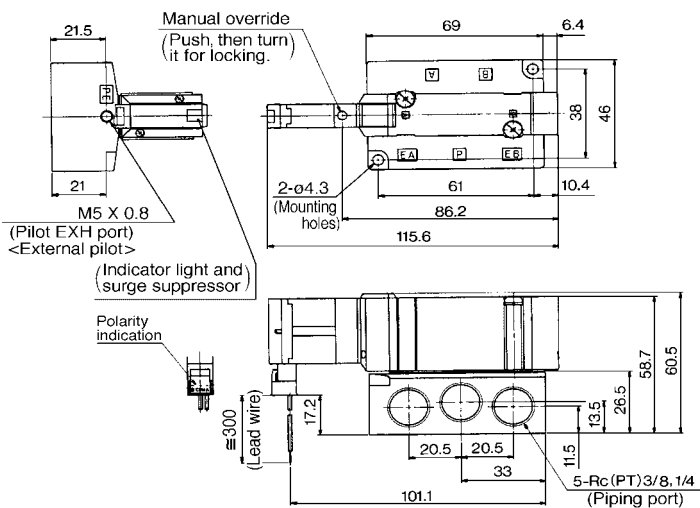
2 position single

Grommet (G), (H): SX7140(R)-□^G□□⁰²₋₀₃



L plug connector (L): SX7140(R)-□L□□⁰²₋₀₃

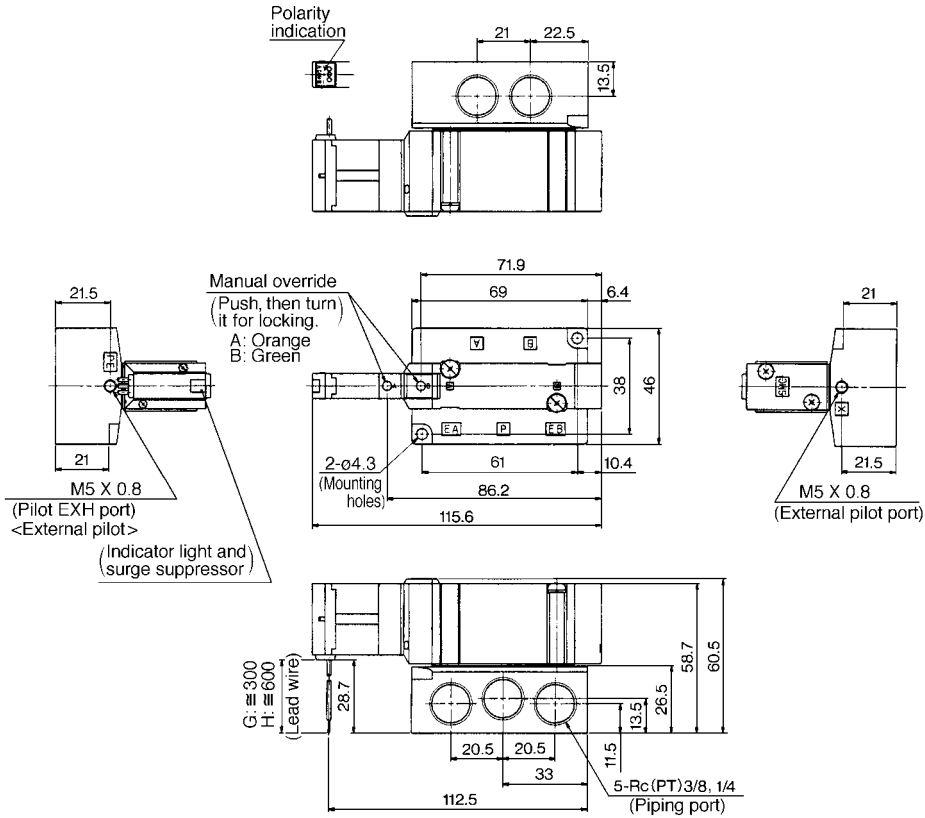
M plug connector (M): SX7140(R)-□M□□⁰²₋₀₃



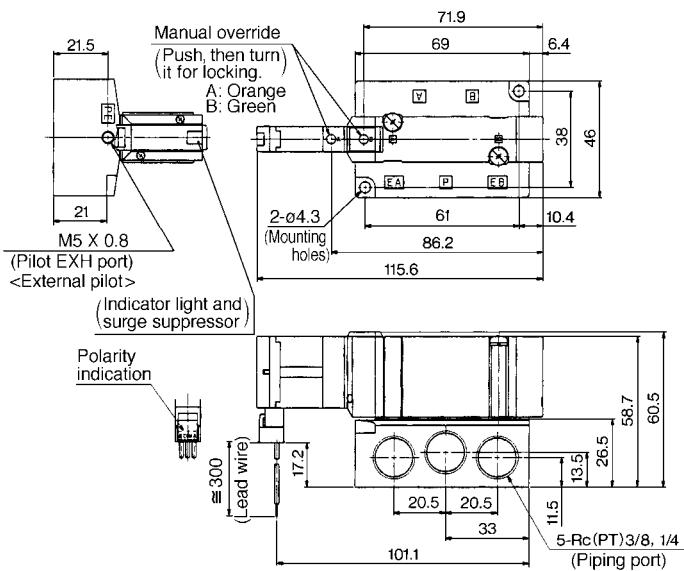
SX3000/5000/7000 Base Mounted Valve

2 position double

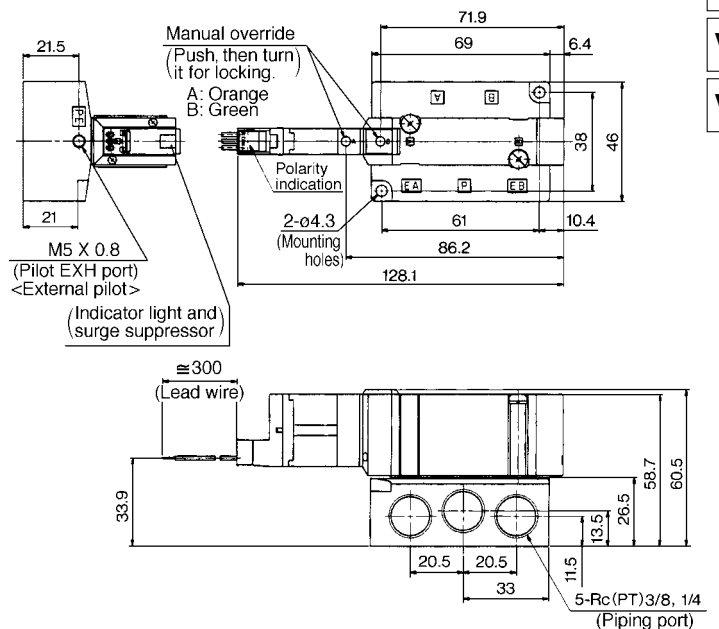
Grommet (G), (H): SX7240(R)-□^G□□^{0.2}_{-0.3}



L plug connector (L): SX7240(R)-□^L□□^{0.2}_{-0.3}



M plug connector (M): SX7240(R)-□^M□□^{0.2}_{-0.3}



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

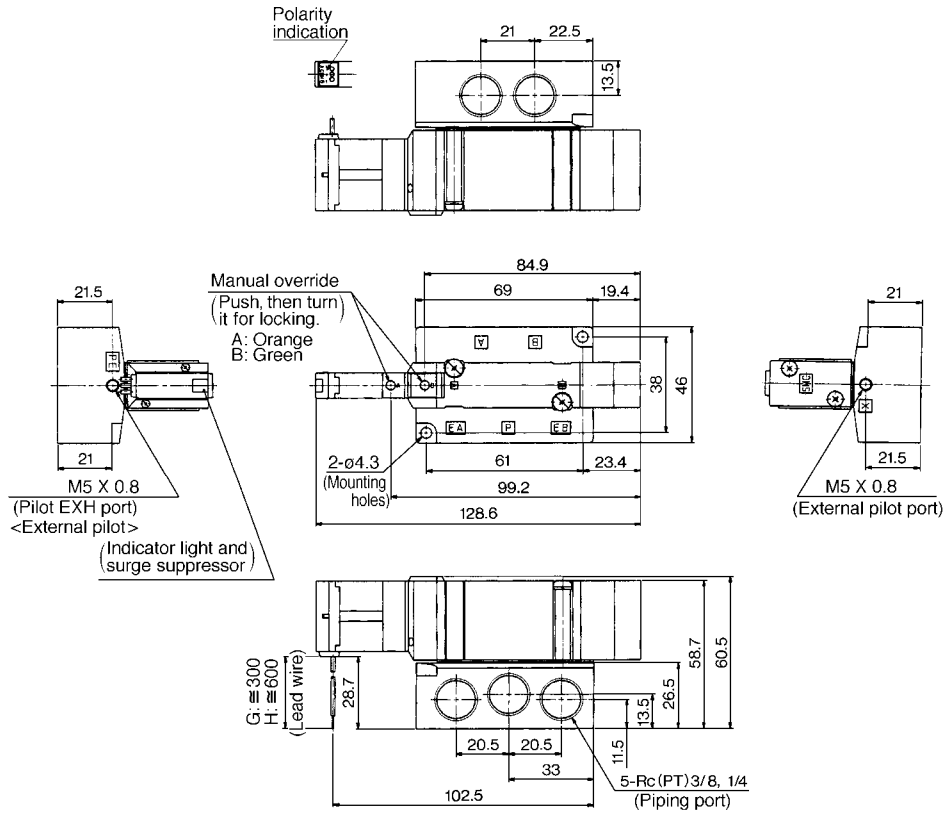
VS7

SX3000/5000/7000

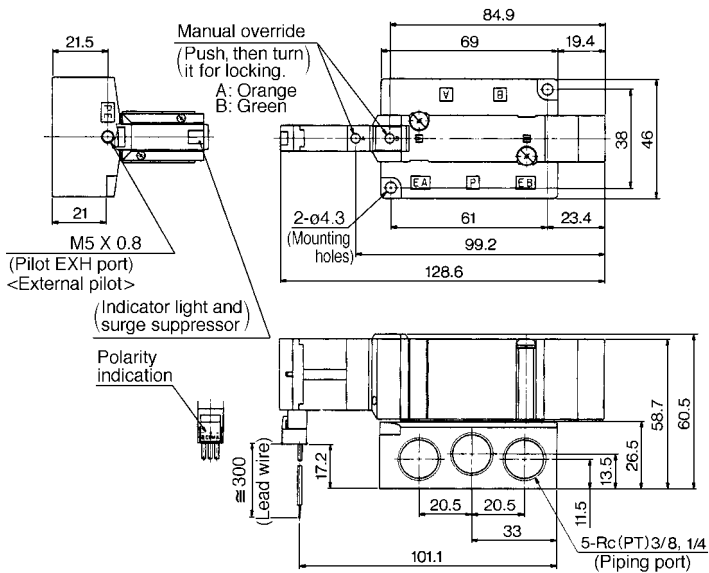
Dimensions/Series SX7000

3 position closed center/exhaust center/pressure center

Grommet (G), (H): $SX7 \frac{3}{4} 40(R) - \square \square \square \square - 0 \frac{2}{3}$



L plug connector (L): $SX7 \frac{3}{4} 40(R) - \square L \square \square - 0 \frac{2}{3}$



M plug connector (M): $SX7 \frac{3}{4} 40(R) - \square M \square \square - 0 \frac{2}{3}$

